

**PHASE II STUDIES**

**PARCEL 2924059005**

**RENTON AND KING COUNTY, WASHINGTON**

**FOR**

**THE PORT OF SEATTLE**

**July 30, 2009**

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**1.0 EXECUTIVE SUMMARY**

The subject property, Parcel 2924059005, is a portion of the BNSF (Burlington Railway Company) Eastside Rail Corridor that the Port of Seattle may acquire from BNSF. The parcel is located in Renton and King County, Washington.

Pinnacle GeoSciences completed the research for a Phase I ESA (Environmental Site Assessment) study of the subject property. The Phase I ESA was not published because, as a transactional tool, it must be current with respect to the actual transaction date. The Phase I ESA will be updated and published in accordance with the standard of practice when the closing of the transaction is imminent. The findings of the Phase I ESA research are summarized in this report and were used to develop the scope of this study. Since the Phase I ESA was never published, its findings are referred to as the “Phase I ESA work” in this report. The Phase I ESA work was completed in accordance with US EPA (US Environmental Protection Agency) and ASTM standards.

The Phase I ESA work identified “*Recognized Environmental Conditions*” which include possible on- and off-site sources that may have impacted the subject parcel. These included other adjacent sites that have been studied and/or remediated under the jurisdiction of the USEPA and Ecology (the Washington Department of Ecology).

The Phase I ESA work identified on- and off-site historic practices and conditions associated with a neighboring property that likely affected the southern part of the subject parcel (Quendall Terminals). That work also evaluated other possible sources of contamination that may have impacted the parcel. This Phase II study evaluated the *Recognized Environmental Conditions* identified by the Phase I ESA work.

The subject parcel is partially adjacent to the Quendall Terminals NPL (National Priorities List) site that is currently being evaluated by others. The Quendall Terminals site is a former pitch and creosote manufacturing company. Part of the operations of that business took place on the

subject parcel where loading facilities were used for rail-based shipment of liquid and solid products manufactured there.

The USEPA provided copies of reports of environmental studies conducted on the Quendall Terminals property. Past studies have identified extensive contamination across the Quendall Terminals site and extending up to the property line with the subject parcel. Interpretations of data from the Quendall Terminals property have projected the likelihood of contamination being present beneath the subject parcel. Contaminants of concern include petroleum and PAHs (polycyclic aromatic hydrocarbons).

Contaminant concentrations in soil and ground water were evaluated in this report with respect to commonly used cleanup values used in MTCA (the Model Toxics Control Act), which is Washington State's cleanup rule. Actual cleanup levels for the Quendall Terminals site may vary from these levels and will be established as part of the ongoing process to mitigate that site through the EPA's Superfund process. It is unknown at this time to what extent cleanup levels established for the Quendall Terminal property may apply to the subject parcel.

Significant soil and ground water contamination was encountered beneath the part of the parcel adjacent to Quendall Terminals. Deeper contaminants were consistent with those found on the Quendall Terminals property, specifically light- to heavy-range petroleum hydrocarbons and cPAHs. NAPL (non-aqueous phase liquid) was encountered in some areas. The deeper contamination appeared to be generally associated with the liquid loading area which is adjacent to former above ground storage tanks on the Quendall Terminals property and the section of the parcel near a large above-ground storage tank connected to the Still House on the Quendall Terminals property. The base of the deeper contamination and its northern and southern limits were established by this study.

Shallow contamination was also encountered on the subject parcel. The shallow contamination is characterized as heavy-range petroleum and cPAHs. Lead and arsenic was also encountered at levels of concern in shallow soil samples, likely associated with the former bulk solids loading area.

Ground water contamination was associated with the areas of deeper soil contamination and contained the same contaminants of concern. PCBs and pesticides/herbicides were not found in the samples tested.

No soil or ground water contaminants associated with other surrounding properties were identified on the subject parcel. We did encounter low-level cPAH concentrations in parts of the rail bed north of the Quendall Terminals property. However, the concentrations and character of the cPAHs observed were consistent with those found on other distant parts of the rail bed and are likely associated with the use of creosote treated ties supporting the rails.

This report provides a detailed summary of the work completed, the analytical laboratory reports, the independent analytical validation report, and a discussion of possible contaminant origins. This summary is presented solely for introductory purposes and is intended for use in conjunction with the full text of this report.

## 2.0 INTRODUCTION

### 2.1 OVERVIEW

The subject site of this Phase II study is King County Tax Parcel No. 2924059005 which is part of the BNSF Eastside Rail Corridor ROW (right of way). The Port of Seattle is completing a process to acquire the Eastside Rail Corridor from BNSF. This specific portion of the rail corridor property is partially adjacent to the Quendall Terminals Superfund site. Hazardous materials handling activities related to the known contaminant sources on the Quendall Terminals property occurred on the subject parcel. In 1998, Ecology issued an “Early Notice Letter” to BNSF for the segment of their ROW adjacent to the Quendall Terminals property. The letter identified that portion of the ROW as the “BNRR Quendall Terminals Loading Rack (Former)” and notified BNSF that the site was being added to Ecology’s list of known or suspected sites.

The location of the subject site is shown in Figure 1. The parcel's southern property boundary is colinear with the southern property boundary of the Quendall Terminals property. The parcel extends about 5,750 feet north. It is 100 feet wide over its length except for a short segment at the northern end where the parcel is about 70 feet wide. Presently the parcel is occupied by a single railroad track and supporting structures. There are no sidings, spurs, switching equipment or controls on this segment of the rail line. There is one trestle in the central part of the parcel. Throughout the remainder of this report, Tax Parcel No. 2924059005 will be referred to as “the parcel” or “the subject parcel.”

The southern third of the parcel borders a historical industrial area that has been used since the early 1900s. There are three primary historically industrial properties in the vicinity of the southern part of the parcel. They are, south to north, the former Barbee Mill property which is now occupied by Conner Homes, the Quendall terminals property and the former J.H. Baxter & Company property which is now occupied by the Seattle Seahawks Training and Headquarters Facility.

Aspects of rail construction and routine maintenance could lead to environmental contamination from on-site sources. Possible contaminant sources related to the use of the parcel as a railroad right-of-way include: 1) use of contaminated materials, such as slag, in rail line ballast; 2) leaching of creosote from railroad ties; 3) routine application of herbicides and pesticides to the rail alignment; 4) spillage of cargo containing hazardous materials onto the rail bed; and 5) residue from locomotives and rail cars including exhaust and petroleum spillage/leakage. These possible sources can affect the rail bed as well as underlying soil and ground water and surface water.

Pinnacle GeoSciences completed research for a Phase I ESA for tax parcel 2924059005. The Phase I ESA was not published because, as a transactional tool, it must be current with respect to the actual transaction date. The Phase I ESA will be updated and published in accordance with the standard of practice when the closing of the transaction is imminent. Since the Phase I ESA was never published, its findings are referred to as the “Phase I ESA work” in this report. The Phase I ESA work was completed in accordance with US EPA and ASTM standards.

The findings of the Phase I ESA work provided a basis for this study. The Phase I ESA work identified the following *Recognized Environmental Conditions* on the subject parcel:

- *Historic operations on the Quendall Terminal property extended onto the subject property where rail shipping activities occurred. These operations included shipping of finished product from the site which included tar, pitch and refined petroleum products. Liquid and solid product loading occurred on the subject parcel in at least two locations. Evidence of tar fragments in the soil matrix were observed at the location of the former loading platform structure.*
- *There are numerous discarded creosote-treated ties scattered along the railroad right-of-way. In some areas there are also buried ties partially exposed in embankments*

The Phase I ESA work identified the following *Recognized Environmental Condition* on one adjoining property that could impact the subject parcel:

- *Confirmed soil and ground water contamination on the Quendall Terminals site could have migrated to the subject parcel. Contaminants of concern include PAHs and petroleum hydrocarbons.*

The Phase I ESA work identified the following *Data Gaps* with respect to the subject parcel:

- *Soil and ground water conditions beneath the segment of the subject parcel adjacent to Quendall Terminals are unknown. Studies by others on the Quendall Terminals property have concluded that PAH and petroleum contamination present on that property extends onto the subject parcel. These conclusions are based on site-wide testing of the Quendall Terminals property which includes explorations located very close to the subject parcel.*
- *Conditions within the rail line ballast on the subject parcel that may be associated with past activities on the part of the parcel next to Quendall Terminals are unknown.*

Pinnacle GeoSciences also conducted an evaluation of railbed conditions at numerous locations along the Eastside Rail Corridor ROW. This evaluation involved obtaining a series of soil samples at different depths at "transects" along the ROW. Each transect included four exploration locations representing conditions adjacent to the rail line and outward to the property boundary. These transects were generally focused on characterizing shallow soil conditions but in some locations we explored depths up to fifteen feet deep. Soil samples from these transects were tested for contaminants that might be related to the use of the property as a railroad ROW including petroleum, selected metals and PAHs. Three of these transects were located on the subject parcel and the information from that work helped develop our approach for this Phase II study. That study also included sampling and analysis of sediment in several locations where it accumulated because of surface water flow. One such location on the subject parcel was also evaluated. The results of the evaluation of those three transects and the sediment sampling location are included in this report.

There has been considerable study of the three sites in the historically industrial area along the west side of the southern part of the parcel. Two of the sites have undergone remediation and

are now redeveloped as residential and commercial property. The Quendall Terminals property remains undeveloped and unused. This study data was also used to help establish the scope of the Phase II study described in this report.

## **2.2 PURPOSE**

The purpose of the Phase II soil and ground water assessment described in this report was to: 1) evaluate whether petroleum products, petroleum-related compounds, metals, pesticides, herbicides or PCBs (polychlorinated biphenyls) are present in soil or ground water beneath Parcel 2924059005; 2) evaluate the approximate distribution of contaminants that might be present; and 3) evaluate possible sources for contamination that might be present. In particular, this study was intended to evaluate what contaminants might be present on the parcel as the result of construction and maintenance of the rail, and what contaminants might be present on the parcel as the result of activities on or related to past activities on and related to the Quendall Terminals property. The assessment was primarily focused on the portion of the site adjacent to the Quendall Terminals because historic operations at facilities that occupied that site occurred on the subject parcel. Additional assessment was also performed on the portion of the subject parcel adjacent to the former J.H. Baxter & Company property and further north.

## **2.3 SCOPE OF SERVICES**

Our general scope of services was to review the Phase I ESA work results and other historical research in an attempt to identify current or historical practices or facilities that might have caused soil or ground water contamination beneath the subject parcel, and to perform soil and ground water testing to evaluate for the presence and extent of potential contamination. Our specific scope of services is as follows:

1. Prepare a site-specific health and safety plan for use by Pinnacle GeoSciences staff.
2. Coordinate with BNSF staff for site access.
3. Perform a public and private utility locate at the site.
4. Drill direct push soil explorations at a total of 23 locations. Obtain continuous soil samples from these borings, or less as allowed by matrix recovery, from each of the soil explorations.
5. Perform headspace and sheen field screening on soil cores at selected intervals in each soil boring.
6. Obtain soil samples at selected depths in the soil borings for laboratory testing. Use EPA Method 5035 sampling methodology for gasoline-range organics, BTEX (benzene, toluene, ethylbenzene and xylenes), and VOCs (volatile organic compounds). Use potential contaminant source information, soil and ground water physical data, and field screening data to select samples for laboratory testing.
7. Obtain ground water grab samples from two direct push explorations.
8. Install 3/4-inch diameter monitoring wells with pre-packed well screens in five of the direct push explorations.

9. Survey the casing rim elevations of the monitoring wells and measure water levels in the wells.
10. Obtain ground water samples from the monitoring wells.
11. Obtain surface soil samples from six locations.
12. Submit selected soil and ground water samples for laboratory chemical analysis of one or more of the following: BTEX by EPA Method 8021B; gasoline-range organics by Ecology Method NWTPH-G; diesel- and lube oil-range organics by Ecology Method NWTPH-Dx; VOCs by EPA Method 8260; SVOCs (semivolatile organic compounds) by EPA Method 8270; PAHs (polycyclic aromatic hydrocarbons) by EPA Method 8270 SIMS; PCBs (polychlorinated biphenyls) by EPA Method 8082; chlorinated pesticides by EPA Method 8081; chlorinated herbicides by EPA Method 8151; and two or more of the following metals by EPA Method 6010 (silver, arsenic, cadmium, chromium, copper, lead and zinc) 70471A (mercury).
13. Prepare a written report summarizing the explorations, and soil and ground water sampling and testing (this report).

### **3.0 SITE PHYSICAL DESCRIPTION**

The site consists of King County Tax Parcel 2924059005, a portion of the BNSF Eastside Rail Corridor in Renton. This tax parcel is owned by BNSF, and is referred to as “the parcel” throughout most of this report. The parcel is 100 feet wide throughout the majority of its length, and the rail alignment is located approximately along the center of the ROW. The southern end of the parcel is colinear with the southern property boundary of the Quendall Terminals property, and from this point the parcel extends approximately 5,750 feet north. The subject parcel and surrounding properties are shown in Figures 1 and 2.

The parcel currently is occupied only by a single rail alignment. Historically, a siding existed parallel to and east of the rail alignment on the portions of the parcel adjacent to the Quendall Terminals and the former J.H. Baxter & Company site. The siding appeared to only serve the use of the Quendall Terminals property activities. The J.H. Baxter & Company property was served by a rail spur that no longer exists. Throughout the portion of the parcel that is adjacent to the Quendall Terminals and former J.H. Baxter & Company site, the rail alignment is constructed on a rail embankment that is approximately 5 to 6 feet higher than the adjacent yard grade of the Quendall Terminals.

The road east of the right of way and south of the trestle is Lake Washington Boulevard. Some maps refer to the part of Lake Washington Boulevard next to the parcel as Hazelwood Lane. A shallow swale is present on the parcel near and paralleling Lake Washington Boulevard for the portion of the parcel adjacent to the Quendall Terminals and the former J.H. Baxter & Company site. The roadway passes beneath the trestle on the central part of the site to the west side of the rail line at which point it is referred to as Ripley Lane North. Ripley Lane North extends approximately 2,600 feet north of the trestle underpass at which point it ends. Parts of Ripley Lane North probably lie on the subject parcel

The ground surface slopes toward Lake Washington along the entire length of the parcel. The slope down toward the lake (westward) surrounding the southern part of the parcel is gentle and the north of the trestle the slope becomes steeper. The elevation of the rail bed rises from an elevation of about 35 feet at the southern end of the parcel to about 55 feet at the northern end.

A buried fiber optic cable runs on the east side of the rail alignment for the entire length of the parcel. The fiber optic cable is located at varying distances east of the rail itself.

The Eastside Interceptor, METRO's 84-inch forced sewer main, runs in a northeast-southwest direction on the east side of the southern half of the parcel. At the approximate location of the south end of the trestle, the sewer line continues to the north-northeast and passes beneath I-405. At the southern part of the subject parcel the sewer pipe line is located at varying distances from the rail line and along the Quendall Terminals part of the parcel the sewer line is beneath the subject property. As the sewer line approaches the trestle area it is exposed at grade along the east side of Lake Washington Boulevard. The Eastside Interceptor carries sewage to the South Treatment Plant in Renton.

The South Mercer Interceptor, another METRO forced sewer main, crosses the parcel in a northwest-southeast direction at the location of the Quendall Terminals' northern property boundary. The South Mercer Interceptor joins the Eastside Interceptor beneath or very close to the subject parcel.

## **4.0 RESULTS OF PHASE I ESA WORK**

The findings of the Phase I ESA work completed by Pinnacle GeoSciences were cited in Section 2.1 of this report. The following discussion summarizes our understanding of historical practices on and around the subject parcel that form the basis of our opinions regarding *Recognized Environmental Conditions* and *Data Gaps*.

The concerns we identified on the subject parcel can be divided into two general categories as follows: 1) conditions of the rail ROW resulting from use of the ROW as a rail line without considering specific impacts of nearby industrial activities, and 2) conditions on the parcel that resulted from historic activities on the Quendall Terminals property including activities on the subject parcel by occupants of the Quendall Terminals property. We did not identify specific concerns related to activities of the former J.H. Baxter & Company or the former Barbee Mill with respect to the subject parcel. Furthermore we did not identify concerns from other known listed sites located east of the subject parcel, including two nearby locations where underground storage tanks had been removed. These other sites will be documented in the Phase I ESA when it is completed.

### **4.1 GENERAL RAIL LINE ISSUES**

The Phase I ESA work identified the presence of discarded treated ties at multiple locations along the subject parcel. The discarded ties contain cPAHs (carcinogenic PAHs) that could be present at concentrations of concern. These ties are considered a solid waste and should be managed accordingly.

The Phase I ESA work also recognized that there may be conditions within the ballast and soil along the rail line that could be associated with the use of the subject parcel as a rail line – unrelated to specific industrial activities in the area. These general concerns were identified in Section 2.1 of this report

## 4.2 QUENDALL TERMINALS-RELATED ISSUES

The use of the Quendall Terminals site and related activities on the subject parcel were identified as *Recognized Environmental Conditions*. The historic activities on the Quendall Terminals site included the following:

1917 to 1969:	Creosote and tar manufacturing
1969 to 1978:	Storage of diesel, crude oil and waste oil
1977 to recent:	Log sorting yard
Current:	Unused.

The concerns identified by the Phase I ESA work relate to operations on the Quendall Terminals property when it was used for creosote and tar manufacturing. Those operation included activities on the subject parcel for shipment of finished product. The post-1969 activities did not involve the rail ROW and the petroleum and waste oil storage was not in proximity to the subject parcel.

The following narrative is from the USEPA Region 10 website describing the Quendall Terminals NPL site: (<http://www.epa.gov/superfund/sites/npl/nar1745.htm>)

### **Site Location/Size:**

*Quendall Terminals is the site of a former creosote manufacturing operation. The site is located on the southeastern shore of Lake Washington. It is about 23 acres in size and is relatively flat.*

### **Site History:**

*The facility began operating in 1917 as the Republic Creosoting Company, which became Reilly Tar and Chemical Corporation in 1956. Creosote was manufactured onsite for about 53 years until 1969. This creosote manufacturing facility refined and processed coal tar and oil-gas tar residues. The tars were purchased from the Seattle Gas Company on Lake Union and were shipped or barged to the site. The tars consisted of polyaromatic hydrocarbon (PAH) compounds, phenolic compounds, light aromatic compounds (including benzene, toluene, and xylenes) and other organic compounds. At the facility, tar distillates were refined to creosote and other chemical products. Releases of tars and creosote products to the environment occurred in portions of the site where the transport, production and/or storage of the products were performed. In 1971, the site was sold to Quendall Terminals. Between 1969 and 1978, the site was used intermittently to store diesel, crude and waste oils. Since 1977, the site has been used as a log sorting and storage yard.*



**Site Contamination/Contaminants:**

*The primary contaminants of concern are carcinogenic PAHs and benzene. These contaminants are found in the soil and ground water throughout the site. These compounds are found at concentrations well above State cleanup levels for residential and industrial sites. At some locations on the site, creosote product has been found under the surface. In some areas the product is four to six feet thick. Releases of these contaminants to Lake Washington are of particular concern.*

**Potential Impacts on Surrounding Community/Environment:**

*Lake Washington is used for a variety of recreational purposes including fishing. The southern end of Lake Washington, including the area where the site is located, is considered prime habitat for rearing of juvenile Chinook, which is a Federal Threatened Species, and other salmon stocks. The Cedar River, which enters Lake Washington approximately two miles from the site, supports the largest sockeye run in the contiguous United States. Lake Washington also supports several sensitive environments including habitat for bull trout and the bald eagle. In addition, there are two swimming beaches located within one half mile of the site.*

**Response Activities (to date):**

*The Washington Department of Ecology initially was the lead regulatory agency for overseeing the cleanup, but in May 2005 the Department of Ecology requested EPA take the lead for overseeing the cleanup at the site. EPA assumed the role as the lead regulatory agency at that time. No removal actions have taken place to date. Quendall Terminals has completed a Remedial Investigation report and a draft Risk Assessment/Focused Feasibility Study.*

-- End of EPA Website Text --

The USEPA provided us with a copy of a recent draft report summarizing known conditions on the Quendall Terminals property (***Draft; Task 3; Preliminary Conceptual Site Model, Remedial Action Objectives, Remediation Goals, and Data Gaps; Remedial Investigation/Feasibility Study; Quendall Terminals Site; Renton, Washington, Anchor Environmental, L.L.C. and Aspect Consulting, L.L.C., November 2007***). The following text, which draws upon that report as a primary source, further describes activities on the Quendall Terminals property and the adjoining portion of the subject parcel. This information which describes the operation of the creosote and tar manufacturing activities there provides an overview of the historical basis for our Phase II studies.

Coal tar feed stock, typically from local off-site sources, was shipped to the Quendall Terminals in tankers or barges on Lake Washington and offloaded at the dock facility. The coal tar feed stock could have been stored in any of the onsite ASTs (above ground tanks) including Tanks 1-5 (located next to the subject parcel as shown in Figure 3) or other tanks located away from and down-gradient with respect to the subject parcel. Very early in the site history (1916 through 1923) Tanks 1-5 were likely used and later (1923 through 1969) the other tanks were used. The coal tar was

cracked (refined) in the still house into three finished products, light distillates, creosote, and pitch. The light distillates and creosote could have been transferred to any tanks, but most likely Tanks 1-5, and several others for storage pending shipping off site. Creosote was also piped directly to the J.H. Baxter & Company site to the north where it was used for wood treatment. Because of the proximity of Tanks 1-5 to the rail line and its Liquid Loading Area, it is likely that these tanks were used for storage of product pending shipping. The pitch component was transferred from the Still House to the Pitch Bays where it was allowed to harden. Waste products of the cracking process were discharged to the north and south sumps, and to the former May Creek channel. Finished products, consisting of light distillates, creosote and pitch, were shipped out by rail.

Our evaluation of aerial and historical photographs indicates that the feature on the subject parcel identified as “loading racks” in EPA drawings was likely used for loading pitch either in solid or possibly liquid form. Historical tax documents refer to the “loading rack” structure as a “loading platform” and photographs show that horse or mule-drawn wagons were used to transport the pitch to a dumping platform above hopper cars on the rail siding. Rail hopper cars are visible stopped on the siding adjacent to the “loading racks” in the 1961 air photo. Hopper cars are used to transport granular bulk solids, but are not suitable for transporting liquids. Black granular tar-like material is visible on the southeast side of the rail alignment in the area of the former loading platform at the locations shown in Figure 3. At one location in this area, a small concrete structure is visible on the southeast side of the rail alignment with larger pieces of the hardened pitch that appeared to have been deposited there in a viscous liquid state. This feature leads us to conclude that some liquid (heated) pitch loading may have also occurred in this area. This loading area will be referred to as the “bulk solids loading area” in this report.

The 1961 air photo also shows rail tank cars stopped on the siding at a location further southwest on the rail alignment, approximately at the location of the former May Creek trestle. We understand that a pipeline crossed under the rail alignment at the former May Creek trestle and from there fed a loading system for the tanker cars. This loading area will be referred to as the “liquid loading area” in this report.

The previously cited 2007 report states the following which corroborates our interpretation of activities by the creosote and tar manufacturing company on the subject parcel:

***Railroad Loading Racks:*** *In 1972, Metro indicated that loading areas at the railroad tracks “received heavy spilling over the years.” Roberts indicated that the railroad loading areas closest to the still house and to the south were used for loading liquid products, and that the areas to the north (east of the pitch bays) were used for loading solid products.*

## 5.0 QUENDALL TERMINALS SUPERFUND STUDIES

We reviewed the following Quendall Terminals reports which were provided to us by the USEPA through a FOIA (Freedom of Information Act) request.

- ***Final Remedial Investigation; Quendall Terminals Uplands; Renton, Washington; Volume I*** (Hart Crowser, April 10, 1997),

- ***Draft Final; Remedial Investigation/Feasibility Study; Port Quendall Terminals Site*** (Anchor Environmental, L.L.C. and Aspect Consulting, L.L.C., November 2007), and
- ***Draft; Task 3; Preliminary Conceptual Site Model, Remedial Action Objectives, Remediation Goals, and Data Gaps; Remedial Investigation/Feasibility Study; Quendall Terminals Site; Renton, Washington*** (Anchor Environmental, L.L.C. and Aspect Consulting, L.L.C., November 2007)

In addition, we reviewed the following draft drawings provided to us by Aspect Consulting:

- “Former May Creek Channel,”
- “Still House Area” and
- “Quendall Pond/North Sump Area”

Most of the work completed at the Quendall Terminals Superfund site has focused on the lower, near shore part of the upland and on the sediments in Lake Washington. The level of detail available at the eastern margin of the site, near the subject parcel, is much lower than in other areas. Furthermore, the information available is based on explorations conducted at different times by different consultants during the early- to mid-1990s.

Studies performed at Quendall Terminals include very few explorations near the subject parcel. Hart Crowser performed two explorations near the subject parcel in 1995. Exploration HC-5 was located about 70 feet northwest of the northwestern boundary of the parcel, at the former location of Tanks 1-5. Exploration HC-8 was located very close to (or possibly on) the subject parcel, just opposite the central part of the Bulk Solid Loading Platform. These exploration locations are shown on Figure 3. The chemical testing data for these two explorations is summarized below.

### **Exploration HC-8**

Exploration HC-8 extended to a depth of 39 feet and ground water was encountered at a depth of about 11 feet at time of drilling.

Low levels of ethylbenzene and xylenes were detected in the soil sample obtained from 5 to 6.5 feet. Benzene and toluene were not detected in this sample, although the benzene reporting level exceeded the current MTCA Method A cleanup level cited in this report. BTEX was not detected in the samples obtained from 10 to 11.5 feet, 25 to 26.5 feet and 35 to 36.5 feet, although again the benzene reporting level exceeded the Method A cleanup level.

The benzo[a] pyrene toxicity equivalency factor of the samples obtained from 5 to 6.5 feet and 10 to 11.5 feet bgs were 29.9 mg/Kg and 1.3 mg/Kg, respectively, exceeding the MTCA Method A cleanup level cited in this report. Carcinogenic PAHs were not detected in the sample obtained from 25 to 26.5 feet bgs with the exception of chrysene slightly exceeding the reporting level. Carcinogenic PAHs were not detected in the sample obtained from 36 to 36.5 feet bgs.

Total arsenic concentrations detected in the samples obtained from 5 to 6.5 feet, 10 to 11.5 feet and 25 to 26.5 feet were less than the MTCA Method A cleanup level. No other metals were tested for in samples obtained from this exploration.

## **Exploration HC-5**

Exploration HC-5 extended to a depth of 19 feet, and ground water was encountered at a depth of about 7.5 feet at time of drilling.

Benzene and one or more of the compounds toluene, ethylbenzene and xylenes exceeded the current MTCA Method A cleanup level cited in this report in the samples obtained at depths of 2.5 to 4 feet and 12.5 to 14 feet. No other samples from this exploration were tested for BTEX.

The benzo[a]pyrene toxicity equivalency factor of the samples obtained from 2.5 to 4 feet and 12.5 to 14 feet bgs were 145.5 mg/Kg and 15.5 mg/Kg, respectively, exceeding the MTCA Method A cleanup level cited in this report. Carcinogenic PAHs were not tested in other samples obtained from exploration HC-5. Hart Crowser reported immunoassay field screening that indicated significantly elevated PAHs in the samples obtained from 7.5 to 9 feet and 10 to 11.5 feet, and a substantially lower immunoassay value in the sample obtained from 17.5 to 19 feet.

Aspect's draft drawings listed above show estimated locations two DNAPL (dense non-aqueous phase liquid) plumes on the Quendall Terminals site, one of which impinges on the subject parcel as shown in Figure 3. The DNAPL plumes characterized by Aspect contain a mixture of heavy petroleum and PAHs that are derived from the coal tar residues that were refined at the facility. The limits of the plume where it impinges on the subject parcel are qualified with question marks, and Mr. Jeremy Porter of Aspect verbally emphasized the low level of certainty of the limits of the plume in this area at the time he provided us with these drawings. The area where the DNAPL plume is shown to impinge on the subject parcel extends roughly from the area of Tanks 1-5 to the Still House area as shown in Figure 3.

## **6.0 PHASE II STUDIES**

### **6.1 INTRODUCTION**

The objective of the Phase II assessment described in this report was to evaluate soil and ground water conditions on the subject parcel at locations identified by the Phase I ESA work. Most of this study was focused on the segment of the parcel adjacent to the Quendall Terminals property which is the only part of the subject parcel where non-rail transport activities are documented. Furthermore, this is the only segment of the parcel where studies of adjacent properties have concluded that contamination may extend onto the subject parcel.

Evaluation of shallow conditions on the northern part of the parcel was conducted to understand ubiquitous-type rail line conditions and whether residues from the loading activities at the southern part of the parcel had been transported to this part of the parcel.

This report is structured to present the laboratory testing data in three ways. The complete laboratory reports are attached in Appendix B, with data validation in Appendix C. The full data is also summarized in Tables 1 through 6. For discussion purposes, the portions of the data that include contaminant detections of regulatory significance are summarized in abbreviated tables in Section 6.5 of the text of this report.

## 6.2 SELECTION OF EXPLORATION LOCATIONS

All explorations performed for this study were located on the subject parcel. Sample collection techniques included surficial grab samples, shallow hand auger explorations and shallow and deep direct push explorations. Direct push explorations were conducted by Cascade Drilling of Woodinville, Washington under subcontract to Pinnacle GeoSciences.

Near surface conditions were evaluated using nine shallow direct push explorations extending to depths of 5 feet bgs, one surface grab sample, and ten near-surface soil samples at depths of 1 and 2 feet bgs that were collected using hand-auger techniques. Eighteen deeper direct push explorations were performed to assess both possible shallow and deeper contaminants. The exploration locations and their rationale are listed below (some explorations are listed to evaluate more than one circumstance). The exploration locations are shown in Figures 2 and 3.

### **Shallow Soil Contaminant Conditions**

- **Quendall Terminals Area (East) – At the main rail line and the former siding:** (Explorations Q1-A, Q2-A, Q8, Q9, Q10, Q11, Q12, Q15 and Q16) These explorations were advanced to evaluate shallow (surface to 5 feet bgs) contaminant conditions near the rail alignment and former siding adjacent to Quendall Terminals.
- **Quendall Terminals Area (West) – Area between the main line and the Quendall Terminals property:** (Explorations Q1-D, Q2-D, Q4, Q5, Q6, Q7, Q13, Q14 and Q17) These explorations were advanced to evaluate shallow (surface to 5 feet bgs) contaminant conditions on the western side of the parcel adjacent to the Quendall Terminals property.
- **Transect B1 – Adjacent to the former J.H. Baxter & Company property:** (Explorations B1-A, B1-B and B1-C) These explorations were advanced to evaluate shallow (surface to 5 feet bgs) contaminant conditions in a cross-section across the east side of the subject parcel near the southern margin of the J.H. Baxter & Company property.
- **Transect Q1 – At the Quendall Terminals Bulk Solid Loading Platform Area:** (Explorations Q1-A, Q1-B, Q1-C and Q1-D) These explorations were advanced to evaluate shallow (surface to 5 feet bgs) contaminant conditions in a cross-section across the subject parcel at the former bulk solid loading area.
- **Transect Q2 – At the Quendall Terminal Liquid Loading Area:** (Explorations Q2-A, Q2-B, Q2-C and Q2-D) These explorations were advanced to evaluate shallow (surface to 5 feet bgs) contaminant conditions in a cross-section across the subject parcel at the former liquid loading area.
- **Focused Sample Location – Quendall Terminals Loading Platform:** (Exploration Q3) This exploration was advanced to evaluate shallow (surface to 5 feet bgs) contaminant conditions adjacent to a concrete structure in the former solids loading platform area.

- **Sediment Sampling Location:** (Exploration Q1-Sed) This exploration was advanced to evaluate surface contaminant conditions at a topographic low point where truck wash water may have ponded.
- **Rail alignment north of the industrial area:** (Explorations QRM-1, QRM-2, QRM-3, QRM-4 and QRM-5) These explorations were advanced to evaluate shallow (1 and 2 feet bgs) contaminant conditions near the rail alignment on the portion of the parcel extending from near the northern part of the former J.H. Baxter & Company site and extending northward to the north end of the parcel.

#### **Deeper Soil Contaminant Conditions**

- **Adjacent to the Former J.H. Baxter & Company property:** (Exploration B1-A) This exploration was advanced to evaluate deeper (up to 25 feet bgs) contaminant conditions on near the rail alignment, adjacent to the former J.H. Baxter & Company site.
- **Quendall Terminals Area (East) – At the main rail line and the former siding:** (Explorations Q8, Q9, Q10, Q11, Q12, Q15 and Q16 – These explorations were advanced to evaluate deeper (up to 29 feet bgs) near the existing rail alignment and the former siding.
- **Quendall Terminals Area (West) – Area between the main line and the Quendall Terminals property:** (Explorations Q1-D, Q2-C, Q2-D, Q4, Q5, Q6, Q7, Q13, Q14 and Q17 These explorations were advanced to evaluate deeper (up to 35 feet bgs) contaminant conditions on the western side of the parcel between the existing rail alignment and the Quendall Terminals property.

#### **Ground Water Conditions**

- Q1-D, Q2-D, Q4, Q9, Q12, Q14 and Q17 – Evaluate ground water contaminant conditions.

### **6.3 CONTAMINANTS OF CONCERN**

Potential contaminants of concern beneath the parcel are generally divided into three categories: 1) potential contaminants originating from construction, maintenance and /or routine operation of the ROW, 2) potential contaminants originating from sources identified on the parcel, and 3) potential contaminants that may have migrated onto the parcel from sources off of the parcel. The potential contaminants of concern for each of these groups are as follows:

### **Construction, Maintenance and Operation of the ROW (unrelated to local conditions)**

Note: Our research indicates that these general contaminant groups could be present in soil beneath any historical rail line. They are residues resulting from the normal, accepted operation of a rail line.

- Wood preservatives used in railroad ties and trestle construction. Primary contaminants could include creosote (including PAHs), arsenic and pentachlorophenol. Based on our observations, the ties appeared to be creosote treated. The trestle superstructure appears to be constructed of creosote-treated wood but parts of it may have been treated with CCA or pentachlorophenol. There is also evidence of secondary treatment of the structure near the ground line using fumigants that are inserted into holes drilled into the treated wood.
- Arsenic applied to control vegetation (Calcium Arsenate was commonly used prior to the development of Roundup in the 1970s).
- Other metals present as contaminants in the rail ballast or fill used to construct rail embankments (particularly lead and arsenic).
- Chlorinated herbicides applied to control vegetation.
- PCBs (a possible component of waste oil which could have been used for vegetation control).
- Petroleum spillage/leakage/dripping from locomotives and rail cars, this could include fuels oils, lubricants or hydraulic fluids. This would be in the immediate vicinity of the tracks.
- PAHs from locomotive exhaust in shallow soils on the ROW.

### **Potential Sources On the Parcel**

- Coal tar-derived contaminants, including PAHs and VOCs leaked or spilled while loading liquid products into rail tank cars at the liquids loading area on the Quendall Terminals property.
- Solid petroleum products (and their constituents, including PAHs) that were spilled while loading rail cars at the solids loading platform, or may have fallen off of loaded cars.

### **Off-site Sources that May Impact the Parcel**

- Coal tar residues, including PAHs and VOCs, that may have migrated onto the site from the Quendall Terminals property.
- Other petroleum products, including PAHs and VOCs, that may have migrated onto the site from the Quendall Terminals property.

## **6.4 FIELD ACTIVITIES**

### **6.4.1 General**

Soil conditions beneath the subject site were evaluated by performing 26 direct push soil explorations, five shallow hand explorations, and by obtaining one surface sample. The direct push explorations were completed on August 27 and October 28 through 30, 2008 using truck- and track-mounted direct push drilling equipment. The soil borings extended to depths of up to 35 feet. Soil cores were obtained using driven tube samplers lined with polyethylene plastic liners. The locations of the explorations are shown in Figures 2 and 3. Our interpretation of soil and ground water conditions at the site are discussed below. Our field procedures and boring and well logs are included in Appendix A.

### **6.4.2 Soil Sampling**

Soil samples were obtained from the direct push explorations, providing continuous cores or less as allowed by sampling recovery. Field screening was performed for the presence of petroleum and volatile organic vapors using a photoionizing detector at discrete intervals selected based on our experience and our observations of soil and ground water conditions. Soil samples were also evaluated using a sheen test. One or more soil samples were selected from each exploration for laboratory testing. Sample selection was based on proximity to potential contaminant sources, soil conditions observed during drilling, and field screening results. Soil sampling data and testing results are summarized in Tables 1 through 4.

### **6.4.3 Well Installation and Ground Water Sampling**

Ground water grab samples were obtained from temporary well casings installed in explorations Q1-D and Q2-D.

Permanent ground water monitoring wells with pre-packed well screens were installed in direct push explorations Q4, Q9, Q12, Q14 and Q17. The wells generally were set with their screens intersecting the most heavily contaminated saturated soil zones as identified by field screening. In the cases of explorations where field screening did not identify contamination, the wells were set with their screens intersecting the most heavily contaminated saturated soil zones in nearby explorations. Ground water samples were obtained from these wells.

All ground water samples were submitted for laboratory testing. The ground water testing results are summarized below and in Tables 5 and 6.

### **6.4.4 Physical Conditions**

#### **Soil**

Visual observations indicated that a granular, black, solid, tar-like substance with grain sizes ranging from coarse sand- to fine gravel- size is visible at the ground surface on the east side of the rail alignment in the area between explorations Q11 and Q12. Two large patches where the material is visible on the ground surface are shown on Figure 3. The material is present immediately beneath the gravel ballast over a larger area.



Soil explorations Q1-C, Q1-D, Q2-C, Q2-D, Q4, Q5, Q6, Q7, Q13, Q14 and Q17 were located along the property boundary on the west side of the parcel, adjacent to the east side of the Quendall Terminals and with surface elevations equivalent to the Quendall Terminals. These explorations encountered complex stratigraphies consisting of silts and fine to medium sands with varying amounts of silt. Layers of peat, typically between 1 and 3 feet thick, were encountered in several of the explorations. Little lateral continuity of soil types was observed between explorations. The soil types encountered in these explorations are typical of lacustrine and lake shore deposits. No glacially consolidated soils were encountered. The soils encountered likely represent the post glacial alluvium and lake shore deposits associated with the pre-historic May Creek Drainage. It is likely that the entire “industrial area” in this area lies within the post-glacial sediments deposited by the pre-historic May Creek. Interpretations of stratigraphy beneath the Quendall Terminals site by Aspect Consulting are consistent with this interpretation.

Several of the explorations, including Q1-D, Q2-C, Q2-D, Q4, Q5, Q6 and Q7, encountered near-surface soil that was identifiable as reworked native soil or fill. Q6 and Q7 encountered burn debris to depths of 5.5 to 6 feet.

Soil explorations Q8, Q9, Q10, Q11, Q12, Q15 and Q16 were located on the rail embankment near the rail alignment, with a surface elevation about 5 feet higher than the adjacent Quendall Terminals. These explorations encountered about 6 inches of crushed rock rail ballast, and silty fine to medium sand with gravel extending from immediately beneath the rail ballast to a depth of 4 to 9 feet. Beneath the silty fine to medium sand with gravel, silts and silty sands were encountered similar to in the explorations discussed in the previous paragraph.

### **Ground Water**

Ground water was encountered at depths ranging from 8.5 to 19 feet bgs in the explorations located along the west side of the parcel, immediately adjacent to and at about the same ground surface elevation as the adjacent part of the Quendall Terminals property. Ground water was encountered at depths ranging from 10.5 to 20 feet bgs in the explorations located near the rail alignment where ground surface elevations are about 5 feet higher than the elevation of the adjoining part of the Quendall Terminals property.

Free product was observed in well Q9. The thickness of the product could not be reliably measured because of the small diameter of the well.

### **Contaminant Conditions**

A black, granular material with grain sizes ranging from coarse sand to fine gravel size was observed mixed with the rail ballast on the ground surface on the east side of the rail alignment extending approximately from the location of exploration Q11 to exploration Q15. The material was especially apparent at the locations of Q1-A and Q1-B, and appeared to extend several feet bgs. The black granular material was present at decreasing concentrations south of Q11 and north of Q15.

A concrete structure which looks similar to a culvert inlet, but with no culvert or pipe visible, is present near the location of exploration Q3. Large pieces of hardened pitch are present on and immediately surrounding the concrete structure. It appears that the material was deposited as a liquid on and around the structure and later hardened or solidified.

Field screening, visual observations, and odor indicated the presence of petroleum-related soil or ground water contamination at the following locations (see exploration logs for more detailed information):

- Q1-C: Moderate sheen on soil from the surface to 4 feet bgs.
- Q1-D: Moderate to heavy sheen on soil from 9 to 22 feet bgs. Oil staining, oil coating, or oil-wetted from 8 to 17 feet bgs and at 21 feet bgs.
- Q2-C: Moderate sheen and oil staining on soil at 13 feet bgs. Heavy sheen on soil from 15 to greater than 20 feet bgs. Oil coating from 16.5 to 18.5 feet bgs. Sheen on soil at depths greater than 20 feet bgs may be the result of soil caving and not representative of actual conditions below 20 feet.
- Q2-D: Heavy sheen on soil from 12 to 14 feet bgs, from 16 to 21.5 feet bgs, at 23.5 feet, and from 26 to 29 feet bgs. Oil coating or oil-wetted from 9 to 19 feet bgs and 26 to 30 feet bgs. Oil staining at 12 feet bgs had a distinct greenish color.
- Q4: Heavy sheen on soil at 15 feet bgs. Oil staining or coating from 13 to 15 feet bgs.
- Q5: Heavy sheen on soil from 18 to 23 feet bgs. Oil staining from 16 to 20 feet bgs.
- Q6: Moderate sheen on soil at 16 feet bgs. Oil staining from 15.5 to 18.5 feet bgs.
- Q7: Moderate sheen on soil and oil coating at 8 to 9 feet bgs.
- Q8: Possible slight odor and slight oil staining at 23 feet bgs.
- Q9: Heavy sheen on soil from 14 to 20 feet bgs, and at 25 feet bgs. Oil coating or oil-wetted from 13 to 20 feet bgs, and at 25 feet bgs. Free product was observed in well Q9. The thickness of the product could not be measured because of the small diameter of the well.
- Q11: Heavy sheen on soil at 11.5 feet.
- Q13: Oil staining at 10 feet.

Possible NAPL above or near residual saturation was observed during drilling in explorations Q1-D, Q2-C, Q2-D, Q4, Q7 and Q9. Significant NAPL was observed later in the monitoring well casing of Q9, but was not observed in the well casing of Q4. The small diameter of the wells precluded using a product probe to determine if the NAPL was more or less dense than water.

## 6.5 CHEMICAL ANALYTICAL RESULTS

Laboratory testing methods and soil sample physical data are summarized in Table 1. Soil testing analytical results for petroleum, SVOCs, arsenic and lead are presented in Table 2. Soil testing analytical results for metals other than arsenic and lead, PCBs, chlorinated pesticides and chlorinated herbicides are presented in Table 3. Benzo(a)pyrene toxicity equivalency calculations for soil are presented in Table 4. Ground water testing analytical results are presented in Table 5.

Benzo(a)pyrene toxicity equivalency calculations for ground water are presented in Table 6. All analytical laboratory reports are included in Appendix B (on CD-R). The analytical validation report by EcoChem is included in Appendix C (on CD-R).

MTCA provides Method A Soil and Ground Water Cleanup Levels for simple sites with few contaminants. For less common contaminants or sites with more complex mixtures of contaminants, MTCA provides Method B Cleanup Levels. MTCA cleanup levels are cited in this report as a reference for evaluating the significance of chemical testing data. MTCA Method A Soil and Ground Water Cleanup Levels are used for comparison when they exist for specific compounds or products. Where Method A Cleanup Levels do not exist for specific detected compounds, Method B Single Compound cleanup levels from the CLARC II tables are cited. The specific MTCA Method A or Method B cleanup levels are summarized the text tables below. These cleanup levels are used strictly for comparison, providing a frame of reference for discussion purposes, and should not be considered at this time as determining regulatory compliance. Other cleanup levels may be applicable and may be used in the future at this site.

### 6.5.1 Soil

#### 6.5.1.1 Petroleum

The concentrations of one or more petroleum products or compounds (benzene, toluene, ethylbenzene, xylenes, gasoline-range organics, diesel-range organics or lube oil-range organics) exceeded the MTCA Method A Soil Cleanup Levels in the samples summarized in the following table. Only samples where at least one analyte concentration exceeded the cleanup levels are tabulated. For those samples tabulated, all analytes are tabulated whether or not they exceeded the applicable cleanup level. The complete testing data for all samples is summarized in Table 2. Figure 4 illustrates petroleum concentrations on cross-sectional representations of the soil explorations.

**Petroleum Product Concentrations In Soil For Samples With At Least One Analyte Concentration Exceeding The Cleanup Level**

Sample Number	Sample Depth (ft)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	Gasoline-range organics (mg/Kg)	Diesel-range organics (mg/Kg)	Lube oil-range organics (mg/Kg)
B1-B-1.0	1.0	NT	NT	NT	NT	NT	<u>4,400</u>	<u>7,300</u>
Q1-A-1.0	1.0	NT	NT	NT	NT	NT	<u>6,300</u>	<u>5,500</u>
Q1-B-1.0	1.0	NT	NT	NT	NT	NT	<u>1,200</u>	<u>1,200</u>
Q1-C-2.5	2.5	NT	NT	NT	NT	NT	<u>500</u>	<u>1,600</u>
Q1-D-9.0	9.0	ND <sup>1</sup>	ND	ND	ND	<u>230</u>	<u>1,600</u>	<u>1,100</u>
Q2-C-13.0	13.0	ND <sup>1</sup>	ND	1	1.91	<u>300</u>	<u>3,000</u>	<u>1,400</u>
Q2-D-3.5	3.5	NT	NT	NT	NT	NT	<u>1,300</u>	<u>3,800</u>
Q2-D-5.0	5.0	NT	NT	NT	NT	NT	<u>660</u>	<u>1,600</u>
Q2-D-13.0	13.0	<u>0.038</u>	0.045	2	2.8	<u>220</u>	560	260

Sample Number	Sample Depth (ft)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	Gasoline-range organics (mg/Kg)	Diesel-range organics (mg/Kg)	Lube oil-range organics (mg/Kg)
Q2-D-18.0	18.0	<b><u>0.24</u></b>	0.055	<b><u>7</u></b>	<b><u>10.3</u></b>	<b><u>390</u></b>	<b><u>11,000</u></b>	<b><u>3,600</u></b>
Q2-D-35.0	35.0	ND <sup>1</sup>	ND	0.54	0.84	<b><u>630</u></b>	ND	ND
Q3-A-1.0	1.0	NT	NT	NT	NT	NT	<b><u>4,200</u></b>	<b><u>2,700</u></b>
Q4-2.5	2.5	NT	NT	NT	NT	NT	<b><u>1,300</u></b>	<b><u>2,300</u></b>
Q4-15.0	15.0	<b><u>0.75</u></b>	1.2	<b><u>13</u></b>	<b><u>20</u></b>	<b><u>2,800</u></b>	<b><u>5,800</u></b>	<b><u>2,500</u></b>
Q5-18.0	18.0	ND <sup>1</sup>	ND	5.8	<b><u>12.3</u></b>	<b><u>3,900</u></b>	220	54
Q6-4.0	4.0	NT	NT	NT	NT	NT	<b><u>9,200</u></b>	<b><u>13,000</u></b>
Q6-18.0	18.0	ND <sup>1</sup>	ND	0.47	0.71	<b><u>3,500</u></b>	<b><u>20,000</u></b>	<b><u>7,300</u></b>
Q7-4.0	4.0	NT	NT	NT	NT	NT	<b><u>1,400</u></b>	<b><u>2,000</u></b>
Q7-5.5	5.5	NT	NT	NT	NT	NT	<b><u>4,500</u></b>	<b><u>5,700</u></b>
Q7-9.0	9.0	<b><u>0.063</u></b>	0.10	0.88	0.79	<b><u>250</u></b>	<b><u>2,800</u></b>	<b><u>470</u></b>
Q8-3.5	3.5	NT	NT	NT	NT	NT	<b><u>870</u></b>	<b><u>2,800</u></b>
Q9-18.0	18.0	<b><u>0.27</u></b>	1.3	<b><u>6.6</u></b>	<b><u>11.6</u></b>	<b><u>1,600</u></b>	<b><u>12,000</u></b>	<b><u>5,900</u></b>
Q10-5.0	5.0	NT	NT	NT	NT	NT	<b><u>710</u></b>	<b><u>1,300</u></b>
Q11-11.5	11.5	ND	ND	ND	ND	6.6	<b><u>2,200</u></b>	<b><u>1,100</u></b>
Q12-4.5	4.5	NT	NT	NT	NT	NT	<b><u>12,000</u></b>	<b><u>20,000</u></b>
Q15-4.0	4.0	NT	NT	NT	NT	NT	<b><u>860</u></b>	<b><u>1,600</u></b>
Cleanup Level (MTCA Method A unless footnoted)		0.03	7	6	9	30	2,000 <sup>2</sup>	

### Notes:

<sup>1</sup> Analyte was not detected, but PQL exceeded cleanup level.

<sup>2</sup> MTCA Method A Cleanup Level is for the sum of the detected diesel-range organics and lube oil-range organics, unless more than one separate products are present.

Values that are **bolded and underlined** exceed the cleanup level.

“NT” indicates not tested.

“ND” indicates not detected at concentration exceeding the laboratory lower reporting limit.

### 6.5.1.2 Carcinogenic PAHs

Carcinogenic PAHs or cPAHs are evaluated under MTCA using a formula that expresses the combined carcinogenicity of the seven cPAHs as a single value relative to the carcinogenicity of benzo(a)pyrene. This value, the Total Toxic Equivalent Concentration, exceeded the MTCA Method A Soil Cleanup Level in the samples summarized in the following table. The concentrations of gasoline-range organics, diesel-range organics and lube oil-range organics for each of these samples are included in this table for comparison. The complete testing data for all samples is summarized in Table 2, and the Total Toxic Equivalent Concentration calculations are summarized in Table 4. Figure 4 illustrates cPAH concentrations on cross-sectional representations of the soil explorations.

**Total Toxic Equivalent Concentration For cPAHs In Soil For Samples With Concentration Exceeding The Cleanup Level**

Sample Number	Sample Depth (ft)	Total Toxic Equivalent Concentration (mg/Kg)	Multiple of MTCA Cleanup Level	Gasoline-range organics (mg/Kg)	Diesel-range organics (mg/Kg)	Lube oil-range organics (mg/Kg)
B1-A-1.0	1.0	<u>6.7</u>	67	NT	180	360
B1-A-3.5	3.5	<u>0.46</u>	5	NT	32	54
B1-B-1.0	1.0	<u>70</u>	696	NT	<u>4,400</u>	<u>7,300</u>
B1-B-3.0	3.0	<u>0.91</u>	9	NT	16	30
B1-B-5.0	5.0	<u>0.37</u>	4	NT	NT	NT
B1-C-5.0	5.0	<u>1.1</u>	11	NT	14	47
Q1-A-1.0	1.0	<u>850</u>	8,499	NT	<u>6,300</u>	<u>5,500</u>
Q1-A-5.0	5.0	<u>0.8</u>	8	NT	NT	NT
Q1-B-1.0	1.0	<u>935</u>	9,346	NT	<u>1,200</u>	<u>1,200</u>
Q1-B-5.0	5.0	<u>2.3</u>	93	NT	NT	NT
Q1-C-2.5	2.5	<u>0.28</u>	3	NT	<u>500</u>	<u>1,600</u>
Q1-C-5.0	5.0	<u>5.5</u>	55	NT	120	100
Q1-D-3.5	3.5	<u>0.46</u>	5	NT	NT	NT
Q1-D-5.0	5.0	<u>22</u>	219	NT	NT	NT
Q1-D-9.0	9.0	<u>33</u>	325	<u>230</u>	<u>1,600</u>	<u>1,100</u>
Q1-D-15.0	15.0	<u>4.8</u>	48	ND	830	75
Q1-D-23.0	23.0	<u>3.0</u>	30	ND	1,700	150

Sample Number	Sample Depth (ft)	Total Toxic Equivalent Concentration (mg/Kg)	Multiple of MTCA Cleanup Level	Gasoline-range organics (mg/Kg)	Diesel-range organics (mg/Kg)	Lube oil-range organics (mg/Kg)
Q1-Sed	Surface	<u>0.20</u>	2	NT	NT	NT
Q2-A-1.0	1.0	<u>5.1</u>	51	NT	220	430
Q2-A-5.0	5.0	<u>0.37</u>	4	NT	6.8	22
Q2-B-1.0	1.0	<u>1.7</u>	17	NT	33	100
Q2-B-5.0	5.0	<u>3.0</u>	30	NT	NT	NT
Q2-C-3.5	3.5	<u>9.5</u>	95	NT	41	140
Q2-C-13.0	13.0	<u>47</u>	473	<u>300</u>	<u>3,000</u>	<u>1,400</u>
Q2-C-25.0	25.0	<u>0.46</u>	5	NT	NT	NT
Q2-D-3.5	3.5	<u>90</u>	922	NT	<u>1,300</u>	<u>3,800</u>
Q2-D-5.0	5.0	<u>298</u>	2,982	NT	<u>660</u>	<u>1,600</u>
Q2-D-10.0	10.0	<u>6.6</u>	66	NT	660	170
Q2-D-13.0	13.0	<u>1.5</u>	15	<u>220</u>	560	260
Q2-D-18.0	18.0	<u>35</u>	356	<u>390</u>	<u>11,000</u>	<u>3,600</u>
Q3-A-1.0	1.0	<u>352</u>	3,520	NT	<u>4,200</u>	<u>2,700</u>
Q3-A-5.0	5.0	<u>28</u>	278	NT	240	250
Q4-2.5	2.5	<u>27</u>	269	NT	<u>1,300</u>	<u>2,300</u>
Q4-15.0	15.0	<u>108</u>	1,083	<u>2,800</u>	<u>5,800</u>	<u>2,500</u>
Q6-4.0	4.0	<u>1,779</u>	17,790	NT	<u>9,200</u>	<u>13,000</u>
Q6-18.0	18.0	<u>198</u>	1,975	<u>3,500</u>	<u>20,000</u>	<u>7,300</u>
Q7-4.0	4.0	<u>32</u>	318	NT	<u>1,400</u>	<u>2,000</u>
Q7-5.5	5.5	<u>124</u>	1,241	NT	<u>4,500</u>	<u>5,700</u>
Q7-9.0	9.0	<u>18</u>	183	<u>250</u>	<u>2,800</u>	<u>470</u>
Q8-3.5	3.5	<u>17</u>	169	NT	<u>870</u>	<u>2,800</u>
Q9-18.0	18.0	<u>132</u>	1,318	<u>1,600</u>	<u>12,000</u>	<u>5,900</u>
Q9-25.0	25.0	<u>9</u>	92	NT	730	270
Q10-5.0	5.0	<u>23</u>	226	NT	<u>710</u>	<u>1,300</u>

Sample Number	Sample Depth (ft)	Total Toxic Equivalent Concentration (mg/Kg)	Multiple of MTCA Cleanup Level	Gasoline-range organics (mg/Kg)	Diesel-range organics (mg/Kg)	Lube oil-range organics (mg/Kg)
Q10-26.0	26.0	<u>0.102</u>	1	ND	ND	ND
Q11-11.5	11.5	<b>26</b>	258	6.6	<b>2,200</b>	<b>1,100</b>
Q12-4.5	4.5	<b>639</b>	6,391	NT	<b>12,000</b>	<b>20,000</b>
Q14-6.5	6.5	<b>37</b>	368	NT	310	470
Q15-4.0	4.0	<b>49</b>	486	NT	<b>860</b>	<b>1,600</b>
Q16-3.5	3.5	<u>0.19</u>	2	NT	NT	NT
Q16-20.0	20.0	<u>0.24</u>	2	ND	ND	ND
QRM-1-1.0	1.0	<u>1.2</u>	12	NT	67	170
QRM-1-2.0	2.0	<u>0.64</u>	6	NT	50	93
QRM-2-1.0	1.0	<u>0.18</u>	2	NT	21	84
QRM-2-2.0	2.0	<u>0.27</u>	3	NT	8.4	21
QRM-3-1.0	1.0	<u>0.11</u>	1	NT	6.0	31
QRM-4-1.0	1.0	<u>0.51</u>	5	NT	6.6	27
Cleanup Level (MTCA Method A unless footnoted)		0.1	N/A	30	2,000 <sup>1</sup>	

### Notes:

<sup>1</sup> MTCA Method A Cleanup Level is for the sum of the detected diesel-range organics and lube oil-range organics, unless more than one separate products are present.

Values that are **bolded and underlined** exceed the cleanup level.

“NT” indicates not tested.

“ND” indicates not detected at concentration exceeding the laboratory lower reporting limit.

### 6.5.1.3 Metals

The concentrations of arsenic or lead exceeded the MTCA Method A Soil Cleanup Levels in the samples summarized in the following table. Only samples where at least one analyte concentration exceeded the cleanup levels are tabulated. For those samples tabulated, all analytes are tabulated whether or not they exceeded the applicable cleanup level. The complete testing data for all samples is summarized in Table 2.

**Metals Concentrations In Soil For Samples With At Least One Analyte Concentration Exceeding The Cleanup Level**

Sample Number	Sample Depth (ft)	Arsenic (mg/Kg)	Lead (mg/Kg)
B1-B-1.0	1.0	<b><u>30</u></b>	<b><u>1,120</u></b>
Q1-A-1.0	1.0	<b><u>110</u></b>	<b><u>1,070</u></b>
Q3-A-1.0	1.0	14	<b><u>1,040</u></b>
Q12-4.5	4.5	<b><u>25</u></b>	117
Cleanup Level (MTCA Method A unless footnoted)		20	250

#### Notes:

Values that are **bolded and underlined** exceed the cleanup level.

“NT” indicates not tested.

“ND” indicates not detected at concentration exceeding the laboratory lower reporting limit.

Other metals, tested as summarized in Table 1, were not detected at concentrations exceeding the Method A or Method B soil cleanup levels.

### 6.5.1.4 PCBs

PCBs were not detected at concentrations exceeding the laboratory PQLs (practical quantification limits) in the samples tested.

### 6.5.1.5 Chlorinated Pesticides and Chlorinated Herbicides

Chlorinated pesticides and chlorinated herbicides were not detected at concentrations exceeding the laboratory PQLs in the samples tested.



## 6.5.2 Ground Water

### 6.5.2.1 Petroleum

The concentrations of one or more petroleum products or compounds (benzene, toluene, ethylbenzene, xylenes, gasoline-range organics, diesel-range organics or lube oil-range organics) exceeded the MTCA Method A Ground Water Cleanup Levels in the samples summarized in the following table. Only samples where at least one analyte concentration exceeded the cleanup levels are tabulated. For those samples tabulated, all analytes are tabulated whether or not they exceeded the applicable cleanup level. The complete testing data for all samples is summarized in Table 5.

**Petroleum Product Concentrations In Ground Water For Samples With At Least One Analyte Concentration Exceeding The Cleanup Level**

Sample Number	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Gasoline-range organics (mg/L)	Diesel-range organics (mg/L)	Lube oil-range organics (mg/L)
Q1-D-W	ND	ND	1.5	ND	0.23	<b><u>1.1</u></b>	ND
Q2-D-W	<b><u>85</u></b>	7.2	190	250	<b><u>6.5</u></b>	NT	NT
Q4-W	<b><u>92</u></b>	57	380	520	<b><u>30</u></b>	<b><u>7.7</u></b>	<b><u>1.8</u></b>
Q9-W	<b><u>1,600</u></b>	<b><u>1,300</u></b>	<b><u>800</u></b>	<b><u>1,460</u></b>	<b><u>82</u></b>	<b><u>85</u></b>	<b><u>21</u></b>
Cleanup Level (MTCA Method A unless footnoted)	5	1,000	700	1,000	0.8	0.5 <sup>1</sup>	

#### Notes:

<sup>1</sup> MTCA Method A Cleanup Level is for the sum of the detected diesel-range organics and lube oil-range organics, unless more than one separate products are present.

Values that are **bolded and underlined** exceed the cleanup level.

“NT” indicates not tested.

“ND” indicates not detected at concentration exceeding the laboratory lower reporting limit.

### 6.5.2.2 Carcinogenic PAHs

Carcinogenic PAHs are evaluated under MTCA using a formula that expresses the combined carcinogenicity of the seven cPAHS as a single value relative to the carcinogenicity of benzo(a)pyrene. This value, the Total Toxic Equivalent Concentration, exceeded the MTCA Method A Ground Water Cleanup Level in the samples summarized in the following table. Only samples where cPAHs were detected are summarized here. The concentrations of gasoline-range organics,

diesel-range organics and lube oil-range organics for each of these samples are included for comparison. The complete testing data for all samples is summarized in Table 5, and the Total Toxic Equivalent Concentration calculations are summarized in Table 6.

#### Total Toxic Equivalent Concentration For cPAHs In Ground Water For Samples With Concentration Exceeding The Cleanup Level

Sample Number	Total Toxic Equivalent Concentration (µg/L)	Multiple of MTCA Cleanup Level	Gasoline-range organics (mg/L)	Diesel-range organics (mg/L)	Lube oil-range organics (mg/l)
Q4-W	<b><u>89.1</u></b>	891	<b><u>30</u></b>	<b><u>7.7</u></b>	<b><u>1.8</u></b>
Q9-W	<b><u>2,758</u></b>	27,580	<b><u>82</u></b>	<b><u>85</u></b>	<b><u>21</u></b>
Cleanup Level (MTCA Method A unless footnoted)	0.1	N/A	0.8	0.5 <sup>1</sup>	

#### Notes:

<sup>1</sup> MTCA Method A Cleanup Level is for the sum of the detected diesel-range organics and lube oil-range organics, unless more than one separate products are present.

Values that are **bolded and underlined** exceed the cleanup level.

“NT” indicates not tested.

“ND” indicates not detected at concentration exceeding the laboratory lower reporting limit.

It should be noted that although cPAHs were not detected in samples Q1-D-W, Q12-W and Q14-W, the laboratory detection levels exceeded the MTCA Method A cleanup level for cPAHs.

#### 6.5.2.3 Metals

The concentrations of dissolved arsenic or lead exceeded the MTCA Method A Ground Water Cleanup Levels in the samples summarized in the following table. Only samples where at least one analyte concentration exceeded the cleanup levels are tabulated. For those samples tabulated, all analytes are tabulated whether or not they exceeded the applicable cleanup level. The complete testing data for all samples is summarized in Table 5.

## Dissolved Metals Concentrations In Ground Water For Samples With At Least One Analyte Concentration Exceeding The Cleanup Level

Sample Number	Arsenic (µg/L)	Lead (µg/L)
Q1-D-W	<b><u>9.2</u></b>	ND
Q9-W	<b><u>1,690</u></b>	<b><u>60</u></b>
Cleanup Level (MTCA Method A unless footnoted)	5	15

### Notes:

Values that are **bolded and underlined** exceed the cleanup level.

“NT” indicates not tested.

“ND” indicates not detected at concentration exceeding the laboratory lower reporting limit.

## 6.6 DATA VALIDATION

EcoChem, Inc. performed validation on the chemical analytical results under subcontract to Pinnacle GeoSciences. EcoChem’s validation report is included in Appendix C.

EcoChem concluded that out of a total of 4,955 analytical results, one result was rejected, 149 results were estimated (flagged as “J” or “UJ” in the data tables) and five results were qualified as not detected (flagged as “U” in the data tables) at an elevated reporting limit. The data quality issues that resulted in the qualification of data by EcoChem are summarized in the following table, along with Pinnacle GeoSciences’ comments if applicable.

### Data Quality Issues Resulting In Qualification Of Data

QA/QC ISSUE	SAMPLE(S) AFFECTED	ANALYTE(S) AFFECTED	ECOCHEM QUALIFICATION	PINNACLE GEOSCIENCES COMMENTS
Continuing calibration percent difference outlier indicating a low bias in the result.	B1-A-3.5, B1-A-5.0, B1-A-10.0, B1-A-15.0, B1-A-20.0, B1-A-24.0, B1-B-3.0	Benzyl alcohol	Flagged “UJ,” not detected, but detection limit considered as estimated. Data may be biased low.	Benzyl alcohol is not a previously identified contaminant at the site.
Field precision outlier.	B1-A-1.0 and DS-1	Diesel- and lube oil-range organics	Flagged “J,” estimated, because of relative percent difference between field sample and field duplicate results.	Relative percent difference between field sample and field duplicate results in soil are not considered significant by Pinnacle GeoSciences unless special circumstances exist, because of the

QA/QC ISSUE	SAMPLE(S) AFFECTED	ANALYTE(S) AFFECTED	ECOCHEM QUALIFICATION	PINNACLE GEOSCIENCES COMMENTS
				nonhomogeneity of the soil sample matrix. Sample testing results should be considered valid for all use.
Low matrix spike recovery.	Q1-D-3.5	Benzoic acid	Flagged "UJ," not detected, but detection limit considered as estimated.	Benzoic acid is not a previously identified contaminant at the site.
Field precision outlier.	Q1-D-23.0 and SD-2	Eight PAHs	Flagged "J," estimated, because of relative percent difference between field sample and field duplicate results.	See "field precision outlier" comment above.
Low laboratory control sample and matrix spike recoveries.	Q1-Sed	Dinoseb	Result rejected.	Result rejected.
Field precision outlier.	Q1-D-23.0 and SD-2.	Diesel- and lube oil-range organics	Flagged "J," estimated, because of relative percent difference between field sample and field duplicate results.	See "field precision outlier" comment above.
Low laboratory control sample recovery.	Q2-A-1.0, Q2-A-5.0, Q2-B-1.0, Q2-B-5.0, Q2-C-3.5, Q2-C-5.0, Q2-C13.0, Q2-C-25.0, Q2-D-3.5, Q2-D-5.0, Q2-D-13.0, Q2-D-18.0, Q2-D-35.0	Benzoic acid	Flagged "UJ," not detected, but detection limit considered as estimated.	Benzoic acid is not a previously identified contaminant at the site.
Matrix interference.	Q2-D-3.5	Delta-BHC	Flagged "U," detection level elevated because of matrix interference.	None
Matrix interference.	Q2-D-5.0	Delta-BHC, aldrin, gamma chlordane	Flagged "U," detection level elevated because of matrix interference.	None
Matrix interference.	Q2-D-5.0	Aroclor 1248	Flagged "U," detection level elevated because of matrix interference.	None
Low matrix spike recovery and lab duplicate precision out of limits.	Q2-A-1.0	Diesel- and lube oil-range organics	Flagged "J," data considered as estimated	None
Low matrix spike recovery and lab duplicate	Q2-A-1.0, Q2-A-5.0, Q2-B-1.0,	Copper	Flagged "J," data considered as estimated	None

QA/QC ISSUE	SAMPLE(S) AFFECTED	ANALYTE(S) AFFECTED	ECOCHEM QUALIFICATION	PINNACLE GEOSCIENCES COMMENTS
precision out of limits.	Q2-B-5.0, Q2-C-3.5, Q2-C-5.0, Q2-C13.0, Q2-C-25.0, Q2-D-3.5, Q2-D-5.0, Q2-D-13.0 Q2-D-18.0, Q2-D-35.0			
No spikes added to the laboratory control samples and laboratory control sample duplicates.	Q4-W, Q9-W, Q12-W, Q14-W, Q17-W, WD-2	PAHs	Samples reextracted with proper spikes after holding time. Results flagged "J" considered as estimated. Results flagged "UJ" not detected, but detection limit considered as estimated. Not enough sample to reextract Q9-W. Results for this sample based on original extraction flagged "J" and considered as estimated.	Results considered as estimated.
Field precision outlier.	Q4-15.0 and SD-3	Dibenzofuran	Flagged "J," estimated, because of relative percent difference between field sample and field duplicate results.	See "field precision outlier" comment above.
Field precision outlier.	Q12-W and WD-2	Acenaphthene, naphthalene and pyrene	Flagged "J," estimated, because of relative percent difference between field sample and field duplicate results.	See "field precision outlier" comment above.
Surrogate recovery outlier.	Q17-W	Diesel- and lube oil-range organics	Flagged "UJ," not detected, but detection limit considered as estimated. Data may be biased low.	None
Field precision outlier.	Q4-15.0 and SD-3	Benzene	Flagged "J," estimated, because of relative percent difference between field sample and field duplicate results.	See "field precision outlier" comment above.

## 7.0 CONCLUSIONS

### 7.1 CONTAMINANT CONDITIONS

#### 7.1.1 Heavier Petroleum Product

Heavier diesel- and lube oil-range organics, and carcinogenic PAHs, are present in shallow soils along the parcel adjacent to the Quendall Terminals property and to a lesser extent extending northward. The petroleum products present in shallow soils are mid-range and heavier hydrocarbons which have several fairly distinguishable and generally similar chromatographic patterns. The character of the petroleum product present in shallow soils appears to be fairly similar in most samples obtained across the entire portion of the parcel next to Quendall Terminals property. However, in a few instances, such as the location of exploration Q1-C, the product type present in shallow soils appears to be different in nature from that characterized in other explorations.

The concentrations of the heavier petroleum products are generally greatest in the upper 5 to 10 feet of soils, both near the rail alignment and closer to the western boundary of the parcel. The concentrations of the heavier petroleum products rapidly decrease with increasing depth beginning at a depth of about 10 feet. The concentrations of the heavier petroleum products in shallower soils decrease markedly towards the northern and southern ends of the portion of the parcel adjacent to the Quendall Terminals property.

Carcinogenic PAHs appear to be associated with the heavier petroleum product, and generally correlate proportionally with them except as discussed in Section 7.1.2. The concentrations of cPAHs decrease at depths below about 10 feet, except as discussed in Section 7.1.2. As with the heavier petroleum products, the concentrations of cPAHs decrease significantly at the south end of the portion of the parcel adjacent to the Quendall Terminals property, but remain at significant levels at the northern end of the part of the parcel next to Quendall Terminals.

Heavier petroleum product was present in shallow soils at the location of the transect adjacent to the former J.H. Baxter & Company site, however, only one sample contained petroleum at concentrations at a level of regulatory significance. The single sample with petroleum concentrations of regulatory significance was at a depth of one foot (sample B1-B-1.0). Carcinogenic PAHs were present in shallow soils at the former J.H. Baxter & Company site transect, but were not present in deeper soils.

Heavier petroleum product was present in shallow soils at the sampling locations north of the former J.H. Baxter & Company site, but in all cases were at concentrations that are not of regulatory significance. Carcinogenic PAHs were present at concentrations which decreased towards the north and decreased between the 1-foot and 2-foot depth increments. At the far north end of the subject parcel, cPAHs were not detected.

Cross-sectional representations of the distribution of the heavier petroleum product contamination and cPAH contamination near the rail alignment and near the property boundary between the parcel and the Quendall Terminals property are shown in Figure 4. Examples of the

typical chromatographic patterns of the heavier petroleum contamination along these cross sections are shown in Figure 5.

### **7.1.2 Lighter Petroleum Product**

Lighter diesel- and lube oil-range organics, and cPAHs, are present in deeper soils along the parcel adjacent to the Quendall Terminals property. The petroleum products present in deeper soils are generally mid-range hydrocarbons which have generally similar chromatographic patterns that are readily distinguishable from the heavier petroleum product in shallow soils. The petroleum product present in deeper soils in the explorations near the rail alignment adjacent to the Quendall Terminals property appears to be fairly similar in most cases to the product present in deeper soils in explorations near the property boundary between the parcel and the Quendall Terminals property.

The lighter petroleum product generally is confined to depths greater than 10 feet, both near the rail alignment and closer to the property boundary. The northern and southern limits of the lighter petroleum product along the parcel appear to be clearly identified and are limited to the section of the parcel adjacent to the Quendall Terminals property. The lower depth limit of the lighter petroleum product also appears to be clearly identified.

Carcinogenic PAHs appear to be associated with the lighter petroleum product, and to correlate with it. The distribution of cPAHs associated with the lighter petroleum products appear to be clearly identified, and to share the same northern and southern limits, and depth limits, as the lighter petroleum product.

Cross-sectional representations of the distribution of the lighter petroleum product contamination and cPAH contamination near the rail alignment and near the property boundary between the parcel and the Quendall Terminals property are shown in Figure 4. Examples of the typical chromatographic patterns of the heavier petroleum contamination along these cross sections are shown in Figure 5.

The lighter petroleum product was not present in the single deeper exploration at the former J.H. Baxter & Company site transect.

### **7.1.3 Metals and Other Contaminants**

Arsenic and/or lead were present at concentrations of regulatory significance in several shallow soil samples obtained from adjacent to the location of the former bulk solid loading platform and at one location adjacent to the J.H. Baxter & Company site. Other metals were not detected at concentrations of regulatory significance in the samples tested.

The samples with arsenic or lead at concentrations of regulatory significance also had high concentrations of heavier petroleum product, but not all samples with high petroleum concentrations contained these metals at elevated concentrations. Arsenic or lead were not detected at concentrations of regulatory significance in deeper soils or at sampling locations north of the former J.H. Baxter & Company site.

Chlorinated herbicides, chlorinated pesticides and PCBs were not detected in the samples tested.

#### 7.1.4 Ground Water

Petroleum products and/or cPAHs were detected in the ground water grab samples obtained from explorations Q1-D and Q2-D and in ground water samples obtained from monitoring wells Q4 and Q9 at concentrations of regulatory significance. Petroleum products and cPAHs were not detected at concentrations of regulatory significance in ground water samples obtained from monitoring wells Q12, Q14 and Q17.

NAPL was present in monitoring well Q9 at the time of sampling.

Dissolved arsenic was detected at a concentration of regulatory significance in the ground water grab sample obtained from exploration Q1-D. Dissolved arsenic and lead were detected at concentrations of regulatory significance in the ground water sample obtained from monitoring well Q9.

#### 7.1.5 NAPL

As stated in the preceding section, NAPL was present in monitoring well Q9. In addition, at the time of drilling field indications of the presence of NAPL at or near residual saturation were observed in explorations Q1-D, Q2-C, Q2-D, Q4, Q7 and Q9. Based on field observations in intervening explorations Q5 and Q6, there appeared to be physical separation between the possible NAPL in Q2-C, Q2-D, Q4 and Q9 and the possible NAPL in Q1-D and Q7.

### 7.2 DISCUSSION OF SOURCES

The data discussed above suggests a variety of sources and source areas have impacted the subject parcel. These are listed below and are discussed in the remainder of this section.

- Low-level cPAH concentrations related to ubiquitous rail line conditions unrelated to specific activities on this segment of the parcel.
- Carcinogenic PAHs in shallow rail bed soils related to tar fragments and particulate tar likely originating at the bulk solid loading platform area.
- Lead and arsenic in shallow soils at several locations immediately beneath the ballast of the rail line. The source of these metals is unknown but it is likely associated with activities at the loading platform.
- Petroleum and cPAHs in soil and ground water on the east side of the rail line at the former location of the liquid loading area. These contaminants likely entered the ground, at least in part, from the current or former ground surface in this area of the parcel.
- Petroleum and cPAHs in soil and ground water on the west side of the main rail line along the parcel's border with the Quendall Terminals property. These contaminants likely migrated, at least in part, from the Quendall Terminals property onto the subject parcel.

**Low-level cPAH in Shallow Soil.** Possible sources of low level cPAHs along rail lines in general have been discussed elsewhere in this report. These conditions are generally not considered



to be indicative of a release or subject to cleanup regulations any more than would be cPAHs present in common asphaltic pavement. These typical rail line background concentrations range from non-detect to very low levels which at times can slightly exceed MTCA cleanup levels.

We found that cPAH concentrations in rail ballast soils from the northern-most samples to be typical to “background” concentrations as observed at other locations on the Eastside Rail Corridor at considerable distance from the subject parcel. This distribution is illustrated in the analysis shown in Figure 6.

Carcinogenic PAHs in soils from the central part of the parcel and southward exhibited profiles typical of the cPAHs observed in soils next to the Quendall Terminals parcel. In those areas the “background levels” would be masked by the higher concentrations associated with the activities on the southern part of the parcel.

**Moderate- to High-level cPAHs in Shallow Soil.** Carcinogenic PAH concentrations in rail ballast soils were elevated in the part of the parcel adjacent to the Quendall Terminals property and diminished in concentration to the north. The use of the bulk solid loading platform to load solid tar fragments into hopper rail cars on the subject parcel is well documented. Occasional granular tar fragments are evident within the ballast along the portion of the rail line bordering the Quendall Terminals property. In the immediate vicinity of the former loading platform there is considerable fragmentary and granular tar material in the soil, in some areas it is the main component of the soil. The historical aerial photographs also suggest that there was considerable spillage during transport to the loading platform as is evidenced by the black discoloration of the circular route used between the pitch bays and the loading platform. Over time, this relatively soft tar material would fragment and breakdown into smaller pieces by the normal stresses of contact with ballast rock.

**Lead and Arsenic in Shallow Soil.** Lead and arsenic were found at concentrations exceeding MTCA Method A cleanup levels in shallow soils at four locations on the parcel. The highest concentrations observed were 1,120 mg/Kg for lead and 110 mg/Kg for arsenic. The MTCA Method A Cleanup Levels for these two metals are 250 mg/Kg for lead and 20 mg/Kg for arsenic. Three of the locations were from explorations at the loading platform (Q1-A, Q1-B and Q3) and one was further north at location B1-B. The sample at B1-B also exhibited characteristics typical of contamination associated with coal tar fragments. All of these locations also exhibited high diesel- and heavy oil-range hydrocarbon concentrations but there were other nearby locations that exhibited high petroleum concentrations without elevated lead and arsenic concentrations.

**Petroleum and cPAHs East of the Main Rail Line.** Petroleum and cPAHs were primarily present in soil and ground water east of the main rail line at the general location of the Liquid Loading Area next to the Quendall Terminal property. Specifically, the highest concentrations of petroleum, cPAHs, and NAPL were encountered at location Q9, beginning at a depth of 15 feet bgs and extending to a maximum depth of about 25 feet bgs.

We understand that a pipeline extended from tanks 1 through 5 to the siding on the east side of the main rail line, where loading of tanker cars was performed. This pipeline followed the former May Creek channel which was not yet filled. Historic photographs show the rail lines crossing a trestle over the former May Creek channel. The location of this trestle over the former May Creek channel also appeared to be the center of tanker car activity on the siding. The channel was subsequently filled and the trestle presumably buried in place although we encountered no evidence of pilings or trestle timbers in our exploration. Exploration Q9 was located at or close to the center of the former May Creek channel, and explorations Q2-C and Q2-D just on the north side of the former channel.

Considering the location of the liquid loading area with respect to the former May Creek trestle and channel it is likely that spills or releases during loading of cars, or leaks from the pipeline, could have accumulated in the May Creek channel if they were too extensive to infiltrate directly into surficial soils. Minor releases of liquid product in the liquid loading area could have infiltrated where they occurred, but larger releases could have accumulated in the base of the former May Creek channel, possibly creating a significant source area. The high concentrations of petroleum and cPAHs in soil beginning at a depth of 15 feet in exploration Q9, which located directly in the former channel, tends to corroborate this interpretation.

**Petroleum and cPAHs West of the Main Rail Line.** Petroleum and cPAHs were primarily present in soil and ground water west of the main rail line in two general areas next to the Quendall Terminals property. Both areas are adjacent to locations of manufacturing and storage activities on the Quendall Terminals property.

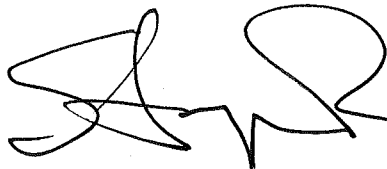
The petroleum and cPAHs in soil present in explorations Q2-C, Q2-D and Q4 could have originated from releases from tanks 1 through 5 migrating through the subsurface onto the subject parcel, or through a combination of releases from tanks 1 through 5 and from the pipeline or liquid loading area as described above. Again, the former May Creek channel may have acted as a collection area where released product could have accumulated and infiltrated.

The relatively low concentrations of contaminants found in exploration Q5 appear to indicate physical separation between the contamination present to the south near the liquid loading area and the similar contamination observed in Q1-D, Q6 and Q7. Although the product type is similar, the lack of high concentrations in Q5 appears to indicate two separate areas of contamination. No liquid product source area has been identified on this part of the subject parcel (near explorations Q1-D, Q6 and Q7). This suggests that the petroleum and cPAH contamination present in these explorations may have originated on the Quendall Terminals property. Historic aerial photographs show a large above ground tank structure located adjacent to the parcel at this location. One photograph shows that this tank is connected to the still house with above ground piping. The actual use of this tank is unknown but it is in close proximity to this separate area of petroleum and cPAH contamination on the subject parcel.

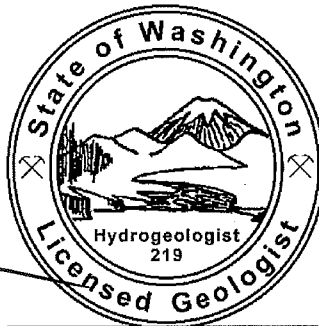
## 8.0 CLOSING

Pinnacle GeoSciences appreciates the opportunity to provide environmental consulting services to the Port of Seattle. Please contact us if you have any questions concerning this report.

Sincerely,  
Pinnacle GeoSciences, Inc



Stephen C. Perrigo, LG, LHG  
Principal



Stephen C. Perrigo



Norman L. Puri, P.E.  
Senior Engineer



EXPIRES 2/4/10

## References (page 1 of 5)

The references cited in this list include the references used in the work completed for the Phase I ESA of the subject property. The Phase I ESA was not published because the real estate transaction is still pending and the Phase I ESA must be published near the time the transaction is completed. The findings of the Phase I ESA work was used in the scoping of the Phase II study reported herein. This list of references includes those references used for the Phase I ESA work and this Phase II report.

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Photo of Quendall terminal area, 1916, provided by Aspect Consulting

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Puget Sound Regional Archives Property Cards for subject and adjacent properties



TABLE 1 (page 1 of 5)  
Exploration Locations,  
Sampling Field Data, and Analysis Inventory  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

									Tests Performed									
Location	Boring Number	Coordinates <sup>1</sup>		Contaminant Source Evaluated	Sample Identity	Depth (feet)	Field Screening <sup>2</sup>		Carcinogenic PAHs <sup>3</sup>	SVOCs, full list <sup>4</sup>	Arsenic and Lead <sup>5</sup>	Four Metals <sup>6</sup>	Eight Metals <sup>7</sup>	Chlorinated Pesticides <sup>8</sup>	Chlorinated Herbicides <sup>9</sup>	PCBs <sup>10</sup>	NWTPH-G/BTEX <sup>11</sup>	NWTPH-Dx <sup>12</sup>
		Easting	Northing				Headspace	Sheen										
Transect B1, Baxter Mill	B1-A	1303193	197648	Baxter Mill	B1-A-1.0	1.0	--	NS		X	X							X
					B1-A-3.5	3.5	--	NS		X	X							X
					B1-A-5.0	5.0	--	NS		X	X							
					B1-A-10.0	10.0	--	NS										
					B1-A-15.0	15.0	--	NS										
					B1-A-20.0	20.0	--	NS		X	X							X
					B1-A-24.0	24.0	--	NS		X	X							X
	B1-B	1303223	197638		B1-B-1.0	1.0	--	NS		X	X							
					B1-B-3.0	3.0	--	NS		X	X							
					B1-B-5.0	5.0	--	NS										
Transect Q1, Quendall Terminal, North	B1-C	1303246	197633		B1-C-5.0	5.0	--	NS		X	X							
	Q1-A	1302972	197226	Quendall Terminal, adjacent to loading ramp	Q1-A-1.0	1.0	--	SS		X	X							X
					Q1-A-5.0	5.0	--	NS		X	X							
	Q1-B	1302980	197224		Q1-B-1.0	1.0	--	SS		X	X							X
					Q1-B-5.0	5.0	--	SS		X	X							
	Q1-C	1302947	197243		Q1-C-2.5	2.5	--	MS		X	X							X
					Q1-C-5.0	5.0	--	SS		X	X							X
	Q1-D	1302926	197250		Q1-D-2.0	2.0	0.1	SS			X	X		X		X		
					Q1-D-3.5	3.5	0.1	SS			X	X		X		X		
					Q1-D-5.0	5.0	0.1	NS		X	X							
					Q1-D-9.0	9.0	0.1	MS		X	X						X	X
					Q1-D-15.0	15.0	0.1	MS		X	X						X	X
					Q1-D-23.0	23.0	0.1	HS		X	X						X	X
					Q1-D-30.0	30.0	0.1	NS		X	X						X	X
	Q1-Sed				Q1-Sed	Surface	0.1	NS		X			X		X			X

TABLE 1 (page 2 of 5)  
Exploration Locations,  
Sampling Field Data, and Analysis Inventory  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

									Tests Performed										
									Carcinogenic PAHs <sup>3</sup>	SVOCs, full list <sup>4</sup>	Arsenic and Lead <sup>5</sup>	Four Metals <sup>6</sup>	Eight Metals <sup>7</sup>	Chlorinated Pesticides <sup>8</sup>	Chlorinated Herbicides <sup>9</sup>	PCBs <sup>10</sup>	NWTPH-G/BTEX <sup>11</sup>	NWTPH-Dx <sup>12</sup>	
Location	Boring Number	Coordinates <sup>1</sup>		Contaminant Source Evaluated	Sample Identity	Depth (feet)	Field Screening <sup>2</sup>												
		Easting	Northing				Headspace	Sheen											
Transect Q2, Quendall Terminal, South	Q2-A	1302840	197027	Quendall Terminal, adjacent to ASTs	Q2-A-1.0	1.0	--	NS		X	X								X
					Q2-A-5.0	5.0	--	NS		X	X								X
	Q2-B	1302840	197046		Q2-B-1.0	1.0	--	NS		X	X								X
					Q2-B-5.0	5.0	--	NS		X	X								
	Q2-C	1302820	197044		Q2-C-3.5	3.5	0.1	NS		X	X								X
					Q2-C-5.0	5.0	0.1	NS		X	X								X
					Q2-C-13.0	13.0	0.1	MS		X	X							X	X
					Q2-C-25.0	25.0	0.1	HS											
	Q2-D	1302804	177059		Q2-D-3.5	3.5	0.1	NS		X	X	X		X		X			X
					Q2-D-5.0	5.0	0.1	NS		X	X	X		X		X			X
					Q2-D-10.0	10.0	0.1	SS		X	X								X
					Q2-D-13.0	13.0	0.1	HS		X	X							X	X
					Q2-D-18.0	18.0	0.1	HS		X	X							X	X
					Q2-D-35.0	35.0	0.1	NS		X	X							X	X
Transect Q3, Quendall Terminal,	Q3-A	1302957	197170	Quendall Terminal, concrete structure	Q3-A-1.0	1.0	--	NS		X	X								X
					Q3-A-5.0	5.0	--	NS		X	X								X
Non-transect Locations	Q4	1302795	197001	General coverage adjacent to Quendall Terminal	Q4-2.5	2.5	0.0	SS	X		X								X
					Q4-10.0	10.0	4.6	SS											
					Q4-15.0	15.0	109	HS	X		X							X	X
					Q4-22.0	22.0	0.0	NS											
					Q4-27.0	27.0	3.8	NS	X		X								X
					Q4-31.0	31.0	0.1	NS	X		X							X	X
	Q5	1302844	197120	General coverage adjacent to Quendall Terminal	Q5-11.0	11.0	0.1	NS											
					Q5-14.0	14.0	0.1	NS	X		X							X	X
					Q5-18.0	18.0	115	HS	X		X							X	X
				Q5-25.5	25.5	0.1	NS	X		X								X	

**TABLE 1 (page 3 of 5)**  
**Exploration Locations,**  
**Sampling Field Data, and Analysis Inventory**  
**King County Parcel 29244059005**  
**Part of BNSF ROW**  
**Renton and King County, Washington**

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TABLE 1 (page 4 of 5)  
Exploration Locations,  
Sampling Field Data, and Analysis Inventory  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

									Tests Performed										
									Carcinogenic PAHs <sup>3</sup>	SVOCs, full list <sup>4</sup>	Arsenic and Lead <sup>5</sup>	Four Metals <sup>6</sup>	Eight Metals <sup>7</sup>	Chlorinated Pesticides <sup>8</sup>	Chlorinated Herbicides	PCBs <sup>10</sup>	NWTPH-G/BTEX <sup>11</sup>	NWTPH-Dx <sup>12</sup>	
Location	Boring Number	Coordinates <sup>1</sup>		Contaminant Source Evaluated	Sample Identity	Depth (feet)	Field Screening <sup>2</sup>												
Easting	Northing	Headspace	Sheen																
Non-transect Locations	Q13	1302764	196965	General coverage adjacent to Quendall Terminal	Q13-4.0	4.0	0.1	NS											
					Q13-10.0	10.0	--	--	X		X						X	X	
					Q13-15.0	15.0	0.1	NS	X		X							X	
					Q13-22.0	22.0	0.1	NS	X		X						X	X	
	Q14	1302981	197319	General coverage adjacent to Quendall Terminal	Q14-2.5	2.5	0.1	NS	X		X							X	
					Q14-6.5	6.5	0.1	NS	X		X							X	
					Q14-15.5	15.5	0.1	NS	X		X						X	X	
					Q14-22.0	22.0	0.1	NS	X		X						X	X	
	Q15	1303011	197296	General coverage adjacent to Quendall Terminal	Q15-4.0	4.0	0.1	NS	X		X							X	
					Q15-16.0	16.0	0.1	NS	X		X						X	X	
					Q15-20.0	20.0	0.1	NS	X		X							X	
					Q15-23.0	23.0	0.1	NS											
	Q16	1302802	196945	General coverage adjacent to Quendall Terminal	Q16-3.5	3.5	0.1	SS	X		X								X
					Q16-12.0	12.0	0.1	NS											
					Q16-20.0	20.0	0.1	NS	X		X						X	X	
					Q16-28.0	28.0	0.1	NS	X		X							X	
	Q17	1302755	196923	General coverage adjacent to Quendall Terminal	Q17-4.0	4.0	0.1	NS											
					Q17-11.0	11.0	0.1	SS	X		X							X	X
					Q17-18.0	18.0	0.1	NS	X		X								X
					Q17-25.0	25.0	0.1	NS	X		X								X

**TABLE 1 (page 5 of 5)**  
**Exploration Locations,**  
**Sampling Field Data, and Analysis Inventory**  
**King County Parcel 29244059005**  
**Part of BNSF ROW**  
**Renton and King County, Washington**

									Tests Performed									
Location	Boring Number	Coordinates <sup>1</sup>		Contaminant Source Evaluated	Sample Identity	Depth (feet)	Field Screening <sup>2</sup>		Carcinogenic PAHs <sup>3</sup>	SVOCs, full list <sup>4</sup>	Arsenic and Lead <sup>5</sup>	Four Metals <sup>6</sup>	Eight Metals <sup>7</sup>	Chlorinated Pesticides <sup>8</sup>	Chlorinated Herbicides <sup>9</sup>	PCBs <sup>10</sup>	NWTPH-G/BTEX <sup>11</sup>	NWTPH-Dx <sup>12</sup>
		Easting	Northing				Headspace	Sheen										
Remote locations	QRM-1	1303552	198251	General coverage north of Quendall Terminal	QRM-1-1.0	1.0	--	--	X		X							X
					QRM-1-2.0	2.0	--	--	X		X							X
	QRM-2	13030954	198966	General coverage north of Quendall Terminal	QRM-2-1.0	1.0	--	--	X		X							X
					QRM-2-2.0	2.0	--	--	X		X							X
	QRM-3	130926	200050	General coverage north of Quendall Terminal	QRM-3-1.0	1.0	--	--	X		X							X
					QRM-3-2.0	2.0	--	--	X		X							X
	QRM-4	1303801	201015	General coverage north of Quendall Terminal	QRM-4-1.0	1.0	--	--	X		X							X
					QRM-4-2.0	2.0	--	--	X		X							X
	QRM-5	1303817	202020	General coverage north of Quendall Terminal	QRM-5-1.0	1.0	--	--	X		X							X
					QRM-5-2.0	2.0	--	--	X		X							X

**Notes:**

<sup>1</sup> Coordinates were measured using a hand-held Global Positioning System receiver, and are generally accurate to plus or minus 15 feet. Exploration locations are shown on Figures 2 and 3.

<sup>2</sup> Bag headspace using RAE Insturments MiniRAE Plus Classic. Sheens by water sheen method. NS = no sheen, SS = slight sheen, MS = moderate sheen, HS = heavy sheen.

<sup>3</sup> Seven carcinogenic polycyclic aromatic hydrocarbons, by EPA Method 8270.

<sup>4</sup> Semivolatile aromatic hydrocarbons, by EPA Method 8270.

<sup>5</sup> By EPA Method 6010.

<sup>6</sup> Chromium, copper, nickle, zinc , by EPA Method 6010 or 7000 series.

<sup>7</sup> Silver, Aresnic, cadmium, chromium, copper, mercury, lead and zinc , by EPA Method 6020 or 7000 series.

<sup>8</sup> By EPA Method 8081.

<sup>9</sup> By EPA Method 8151.

<sup>10</sup> Polychlorinated biphenyls, by EPA Method 8082.

<sup>11</sup> Gasoline-range organics by Ecology Method NWTPH-G, and benzene, ethylbenzene, toluene and xylenes, by EPA Method 8021.

<sup>12</sup> Diesel- and lube oil-range organics by Ecology Method NWTPH-Dx.

TABLE 2 (Page 1 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	B1-A-1.0	DS-1 (B1-A-1.0)	B1-A-3.5	B1-A-5.0	B1-A-10.0	B1-A-15.0	B1-A-20.0	B1-A-24.0
Sample Date and Time	8/27/2008 9:10	8/27/2008 12:01	8/27/2008 8:55	8/27/2008 8:57	8/27/2008 9:03	8/27/2008 9:15	8/27/2008 9:20	8/27/2008 9:30
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)								
Diesel Range Hydrocarbons	180 J	320 J	32	5.6 U	--	--	8.7 U	23
Motor Oil	360	500	54	11 U	--	--	120	380
Gasoline by Method NWTPHG (Concentrations in mg/kg)								
Gasoline Range Hydrocarbons	--	--	--	--	--	--	--	--
BTEX by Method SW8021B Mod (Concentrations in µg/kg)								
Benzene	--	--	--	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--
m,p-Xylene	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--
Metals by EPA Method SW6010B (Concentrations in mg/kg)								
Arsenic	17	13	7	6 U	--	--	8 U	9 U
Lead	99	95	23	4	--	--	3	4 U
SVOA by Method SW8270D (Concentrations in µg/kg)								
1,2,4-Trichlorobenzene	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
1,2-Dichlorobenzene	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
1,3-Dichlorobenzene	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
1,4-Dichlorobenzene	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
1-Methylnaphthalene	570	1,000	66 U	62 U	63 U	65 U	63 U	66 U
2,2'-Oxybis(1-Chloropropane)	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
2,4,5-Trichlorophenol	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
2,4,6-Trichlorophenol	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
2,4-Dichlorophenol	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
2,4-Dimethylphenol	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
2,4-Dinitrophenol	3,100 U	1,900 U	660 U	620 U	630 U	650 U	630 U	660 U
2,4-Dinitrotoluene	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
2,6-Dinitrotoluene	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
2-Chloronaphthalene	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
2-Chlorophenol	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
2-Methylnaphthalene	650	1,100	66 U	62 U	63 U	65 U	63 U	66 U
2-Methylphenol	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
2-Nitroaniline	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
2-Nitrophenol	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
3,3'-Dichlorobenzidine	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
3-Nitroaniline	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
4,6-Dinitro-2-Methylphenol	3,100 U	1,900 U	660 U	620 U	630 U	650 U	630 U	660 U
4-Bromophenyl-phenylether	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
4-Chloro-3-methylphenol	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
4-Chloroaniline	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
4-Chlorophenyl-phenylether	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
4-Methylphenol	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
4-Nitroaniline	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
4-Nitrophenol	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
Acenaphthene	1,200	1,400	66 U	62 U	63 U	65 U	63 U	66 U
Acenaphthylene	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Anthracene	1,600	2,400	83	62 U	63 U	65 U	63 U	66 U
Benzo(a)anthracene	4,100	4,500	210	62 U	63 U	65 U	63 U	66 U
Benzo(a)pyrene	5,200	5,400	310	62 U	63 U	65 U	63 U	66 U
Benzo(b)fluoranthene	4,100	4,900	250	62 U	63 U	65 U	63 U	66 U
Benzo(g,h,i)perylene	3,000	1,900	210	62 U	63 U	65 U	63 U	66 U
Benzo(k)fluoranthene	2,900	3,000	160	62 U	63 U	65 U	63 U	66 U
Benzoic Acid	3,100 U	1,900 U	660 U	620 U	630 U	650 U	630 U	660 U
Benzyl Alcohol	310 U	190 U	66 UJ	62 UJ	63 UJ	65 UJ	63 UJ	66 UJ
bis(2-Chloroethoxy) Methane	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Bis-(2-Chloroethyl) Ether	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
bis(2-Ethylhexyl)phthalate	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Butylbenzylphthalate	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Carbazole	740	990	66 U	62 U	63 U	65 U	63 U	66 U
Chrysene	5,500	6,200	330	62 U	63 U	65 U	63 U	66 U
Dibenz(a,h)anthracene	510	390	66 U	62 U	63 U	65 U	63 U	66 U
Dibenzofuran	310 U	260	66 U	62 U	63 U	65 U	63 U	66 U
Diethylphthalate	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Dimethylphthalate	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Di-n-Butylphthalate	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Di-n-Octyl phthalate	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Fluoranthene	8,300	8,700	370	62 U	63 U	65 U	63 U	66 U
Fluorene	630	1,100	66 U	62 U	63 U	65 U	63 U	66 U
Hexachlorobenzene	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Hexachlorobutadiene	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Hexachlorocyclopentadiene	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
Hexachloroethane	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Indeno(1,2,3-cd)pyrene	2,500	1,700	180	62 U	63 U	65 U	63 U	66 U
Isophorone	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Naphthalene	770	1,300	66 U	62 U	440	65 U	63 U	66 U
Nitrobenzene	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
N-Nitroso-Di-N-Propylamine	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
N-Nitrosodiphenylamine	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Pentachlorophenol	1,600 U	930 U	330 U	310 U	310 U	330 U	310 U	330 U
Phenanthrene	8,500	10,000	410	62 U	140	65 U	63 U	66 U
Phenol	310 U	190 U	66 U	62 U	63 U	65 U	63 U	66 U
Pyrene	10,000	9,600	590	62 U	63 U	65 U	63 U	66 U

TABLE 2 (Page 2 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	B1-B-1.0	B1-B-3.0	B1-B-5.0	B1-C-5.0
Sample Date and Time	8/27/2008 9:42	8/27/2008 9:38	8/27/2008 9:40	8/27/2008 9:55
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)				
Diesel Range Hydrocarbons	4,400	16	--	14
Motor Oil	7,300	30	--	47
Gasoline by Method NWTPHG (Concentrations in mg/kg)				
Gasoline Range Hydrocarbons	--	--	--	--
BTEX by Method SW8021B Mod (Concentrations in µg/kg)				
Benzene	--	--	--	--
Ethylbenzene	--	--	--	--
m,p-Xylene	--	--	--	--
o-Xylene	--	--	--	--
Toluene	--	--	--	--
Metals by EPA Method SW6010B (Concentrations in mg/kg)				
Arsenic	30	5 U	--	5 U
Lead	1,120	17	--	17
SVOA by Method SW8270D (Concentrations in µg/kg)				
1,2,4-Trichlorobenzene	610 U	61 U	60 U	65 U
1,2-Dichlorobenzene	610 U	61 U	60 U	65 U
1,3-Dichlorobenzene	610 U	61 U	60 U	65 U
1,4-Dichlorobenzene	610 U	61 U	60 U	65 U
1-Methylnaphthalene	7,700	130	60 U	65 U
2,2'-Oxybis(1-Chloropropane)	610 U	61 U	60 U	65 U
2,4,5-Trichlorophenol	3,100 U	310 U	300 U	330 U
2,4,6-Trichlorophenol	3,100 U	310 U	300 U	330 U
2,4-Dichlorophenol	3,100 U	310 U	300 U	330 U
2,4-Dimethylphenol	610 U	61 U	60 U	65 U
2,4-Dinitrophenol	6,100 U	610 U	600 U	650 U
2,4-Dinitrotoluene	3,100 U	310 U	300 U	330 U
2,6-Dinitrotoluene	3,100 U	310 U	300 U	330 U
2-Chloronaphthalene	610 U	61 U	60 U	65 U
2-Chlorophenol	610 U	61 U	60 U	65 U
2-Methylnaphthalene	10,000	170	60 U	65 U
2-Methylphenol	610 U	61 U	60 U	65 U
2-Nitroaniline	3,100 U	310 U	300 U	330 U
2-Nitrophenol	610 U	61 U	60 U	65 U
3,3'-Dichlorobenzidine	3,100 U	310 U	300 U	330 U
3-Nitroaniline	3,100 U	310 U	300 U	330 U
4,6-Dinitro-2-Methylphenol	6,100 U	610 U	600 U	650 U
4-Bromophenyl-phenylether	610 U	61 U	60 U	65 U
4-Chloro-3-methylphenol	3,100 U	310 U	300 U	330 U
4-Chloroaniline	3,100 U	310 U	300 U	330 U
4-Chlorophenyl-phenylether	610 U	61 U	60 U	65 U
4-Methylphenol	610 U	61 U	60 U	65 U
4-Nitroaniline	3,100 U	310 U	300 U	330 U
4-Nitrophenol	3,100 U	310 U	300 U	330 U
Acenaphthene	13,000	180	83	140
Acenaphthylene	660	61 U	60 U	65 U
Anthracene	19,000	280	96	190
Benzo(a)anthracene	46,000	530	200	620
Benzo(a)pyrene	58,000	730	290	880
Benzo(b)fluoranthene	40,000	420	220	640
Benzo(g,h,i)perylene	17,000	560	170	450
Benzo(k)fluoranthene	27,000	340	160	490
Benzoic Acid	6,100 U	610 U	600 U	650 U
Benzyl Alcohol	610 U	61 UJ	60 U	65 U
bis(2-Chloroethoxy) Methane	610 U	61 U	60 U	65 U
Bis-(2-Chloroethyl) Ether	610 U	61 U	60 U	65 U
bis(2-Ethylhexyl)phthalate	610 U	61 U	60 U	65 U
Butylbenzylphthalate	610 U	61 U	60 U	65 U
Carbazole	5,500	61 U	60 U	87
Chrysene	56,000	680	270	850
Dibenz(a,h)anthracene	3,300	80	60 U	68
Dibenzofuran	840	61 U	60 U	65 U
Diethylphthalate	610 U	61 U	60 U	65 U
Dimethylphthalate	610 U	61 U	60 U	65 U
Di-n-Butylphthalate	610 U	61 U	60 U	65 U
Di-n-Octyl phthalate	610 U	61 U	60 U	65 U
Fluoranthene	83,000	890	480	1,200
Fluorene	8,700	120	60 U	68
Hexachlorobenzene	610 U	61 U	60 U	65 U
Hexachlorobutadiene	610 U	61 U	60 U	65 U
Hexachlorocyclopentadiene	3,100 U	310 U	300 U	330 U
Hexachloroethane	610 U	61 U	60 U	65 U
Indeno(1,2,3-cd)pyrene	14,000	370	120	330
Isophorone	610 U	61 U	60 U	65 U
Naphthalene	16,000	370	60 U	80
Nitrobenzene	610 U	61 U	60 U	65 U
N-Nitroso-Di-N-Propylamine	3,100 U	310 U	300 U	330 U
N-Nitrosodiphenylamine	690 U	61 U	60 U	65 U
Pentachlorophenol	3,100 U	310 U	300 U	330 U
Phenanthrene	100,000	1,400	560	1,200
Phenol	610 U	61 U	60 U	65 U
Pyrene	110,000	1,700	550	1,400

TABLE 2 (Page 3 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q1-A-1.0	Q1-A-5.0	Q1-B-1.0	Q1-B-5.0	Q1-C-2.5	Q1-C-5.0
Sample Date and Time	8/27/2008 11:38	8/27/2008 11:40	8/27/2008 11:50	8/27/2008 11:52	8/27/2008 12:22	8/27/2008 12:25
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)						
Diesel Range Hydrocarbons	6,300	--	1,200	--	500	120
Motor Oil	5,500	--	1,200	--	1,600	100
Gasoline by Method NWTPHG (Concentrations in mg/kg)						
Gasoline Range Hydrocarbons	--	--	--	--	--	--
BTEX by Method SW8021B Mod (Concentrations in µg/kg)						
Benzene	--	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--
m,p-Xylene	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--
Toluene	--	--	--	--	--	--
Metals by EPA Method SW6010B (Concentrations in mg/kg)						
Arsenic	110	6 U	38	6 U	10 U	7
Lead	1,070	6	743	5	24	3
SVOA by Method SW8270D (Concentrations in µg/kg)						
1,2,4-Trichlorobenzene	11,000 U	60 U	3,900 U	320 U	96 U	310 U
1,2-Dichlorobenzene	11,000 U	60 U	3,900 U	320 U	96 U	310 U
1,3-Dichlorobenzene	11,000 U	60 U	3,900 U	320 U	96 U	310 U
1,4-Dichlorobenzene	11,000 U	60 U	3,900 U	320 U	96 U	310 U
1-Methylnaphthalene	140,000	60 U	140,000	1,400	96 U	310 U
2,2'-Oxybis(1-Chloropropane)	11,000 U	60 U	3,900 U	320 U	96 U	310 U
2,4,5-Trichlorophenol	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
2,4,6-Trichlorophenol	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
2,4-Dichlorophenol	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
2,4-Dimethylphenol	11,000 U	60 U	3,900 U	320 U	96 U	310 U
2,4-Dinitrophenol	110,000 U	600 U	39,000 U	3,200 U	960 U	3,100 U
2,4-Dinitrotoluene	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
2,6-Dinitrotoluene	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
2-Chloronaphthalene	11,000 U	60 U	3,900 U	320 U	96 U	310 U
2-Chlorophenol	11,000 U	60 U	3,900 U	320 U	96 U	310 U
2-Methylnaphthalene	170,000	60 U	180,000	1,900	96 U	310 U
2-Methylphenol	11,000 U	60 U	3,900 U	320 U	96 U	310 U
2-Nitroaniline	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
2-Nitrophenol	11,000 U	60 U	3,900 U	320 U	96 U	310 U
3,3'-Dichlorobenzidine	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
3-Nitroaniline	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
4,6-Dinitro-2-Methylphenol	110,000 U	600 U	39,000 U	3,200 U	960 U	3,100 U
4-Bromophenyl-phenylether	11,000 U	60 U	3,900 U	320 U	96 U	310 U
4-Chloro-3-methylphenol	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
4-Chloroaniline	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
4-Chlorophenyl-phenylether	11,000 U	60 U	3,900 U	320 U	96 U	310 U
4-Methylphenol	11,000 U	60 U	3,900 U	320 U	96 U	310 U
4-Nitroaniline	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
4-Nitrophenol	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
Acenaphthene	160,000	60 U	180,000	1,700	96 U	310 U
Acenaphthylene	11,000 U	60 U	3,900 U	320 U	96 U	530
Anthracene	240,000	60 U	270,000	2,800	96 U	2,700
Benzo(a)anthracene	560,000	150	580,000	5,300	150	1,000
Benzo(a)pyrene	680,000	650	760,000	7,600	210	4,500
Benzo(b)fluoranthene	500,000	350	430,000	4,900	160	2,900
Benzo(g,h,i)perylene	220,000	380	220,000	2,300	96 U	1,500
Benzo(k)fluoranthene	290,000	580	410,000	3,700	230	4,300
Benzoic Acid	110,000 U	600 U	39,000 U	3,200 U	960 U	3,100 U
Benzyl Alcohol	11,000 U	60 U	3,900 U	320 U	96 U	310 U
bis(2-Chloroethoxy) Methane	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Bis-(2-Chloroethyl) Ether	11,000 U	60 U	3,900 U	320 U	96 U	310 U
bis(2-Ethylhexyl)phthalate	11,000 U	60 U	3,900 U	320 U	300	310 U
Butylbenzylphthalate	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Carbazole	47,000	60 U	56,000	420	96 U	310 U
Chrysene	700,000	300	760,000	6,800	240	3,600
Dibenz(a,h)anthracene	99,000	92	90,000	840	96 U	560
Dibenzofuran	12,000	60 U	8,600	320 U	96 U	310 U
Diethylphthalate	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Dimethylphthalate	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Di-n-Butylphthalate	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Di-n-Octyl phthalate	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Fluoranthene	710,000	110	670,000	6,700	320	920
Fluorene	120,000	60 U	150,000	1,500	96 U	310 U
Hexachlorobenzene	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Hexachlorobutadiene	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Hexachlorocyclopentadiene	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
Hexachloroethane	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Indeno(1,2,3-cd)pyrene	180,000	280	160,000	1,700	96 U	1,300
Isophorone	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Naphthalene	260,000	60 U	260,000	3,100	96 U	310 U
Nitrobenzene	11,000 U	60 U	3,900 U	320 U	96 U	310 U
N-Nitroso-Di-N-Propylamine	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
N-Nitrosodiphenylamine	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Pentachlorophenol	56,000 U	300 U	19,000 U	1,600 U	480 U	1,500 U
Phenanthrene	1,100,000	180	1,200,000	12,000	270	660
Phenol	11,000 U	60 U	3,900 U	320 U	96 U	310 U
Pyrene	1,400,000	270	1,600,000	15,000	600	2,900



TABLE 2 (Page 4 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q1-D-2.0	Q1-D-3.5	Q1-D-5.0	Q1-D-9.0	Q1-D-15.0	Q1-D-23.0	SD-2 (Q1-D-23.0)	Q1-D-30.0
Sample Date and Time	8/27/2008 13:05	8/27/2008 13:07	8/27/2008 13:10	8/27/2008 13:23	8/27/2008 13:35	8/27/2008 13:50	8/27/2008 12:01	8/27/2008 14:05
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)								
Diesel Range Hydrocarbons	--	--	--	1600	830	1700 J	980 J	6 U
Motor Oil	--	--	--	1100	75	150 J	89 J	12 U
Gasoline by Method NWTPHG (Concentrations in mg/kg)								
Gasoline Range Hydrocarbons	--	--	--	230	49 U	3.8 U	10	4.9 U
BTEX by Method SW8021B Mod (Concentrations in µg/kg)								
Benzene	--	--	--	170 U	120 U	9.5 U	10 U	12 U
Ethylbenzene	--	--	--	170 U	120 U	9.5 U	10 U	12 U
m,p-Xylene	--	--	--	330 U	240 U	19 U	20 U	24 U
o-Xylene	--	--	--	170 U	120 U	9.5 U	10 U	12 U
Toluene	--	--	--	170 U	120 U	9.5 U	10 U	12 U
Metals by EPA Method SW6010B (Concentrations in mg/kg)								
Arsenic	5 U	5 U	11	10	6 U	6 U	6 U	6 U
Lead	17	44	10	5	2 U	2 U	2 U	4
SVOA by Method SW8270D (Concentrations in µg/kg)								
1,2,4-Trichlorobenzene	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
1,2-Dichlorobenzene	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
1,3-Dichlorobenzene	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
1,4-Dichlorobenzene	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
1-Methylnaphthalene	--	61 U	2,200	12,000	76,000	18,000	16,000	62 U
2,2'-Oxybis(1-Chloropropane)	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
2,4,5-Trichlorophenol	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
2,4,6-Trichlorophenol	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
2,4-Dichlorophenol	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
2,4-Dimethylphenol	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
2,4-Dinitrophenol	--	610 U	6,600 U	6,200 U	1,600 U	660 U	750 U	620 U
2,4-Dinitrotoluene	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
2,6-Dinitrotoluene	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
2-Chloronaphthalene	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
2-Chlorophenol	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
2-Methylnaphthalene	--	61 U	3,000	9,400	120,000	28,000	25,000	85
2-Methylphenol	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
2-Nitroaniline	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
2-Nitrophenol	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
3,3'-Dichlorobenzidine	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
3-Nitroaniline	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
4,6-Dinitro-2-Methylphenol	--	610 U	6,600 U	6,200 U	1,600 U	660 U	750 U	620 U
4-Bromophenyl-phenylether	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
4-Chloro-3-methylphenol	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
4-Chloroaniline	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
4-Chlorophenyl-phenylether	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
4-Methylphenol	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
4-Nitroaniline	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
4-Nitrophenol	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
Acenaphthene	--	61 U	4,000	67,000	120,000	38,000	30,000	82
Acenaphthylene	--	61 U	660 U	2,400	160 U	66 U	75 U	62 U
Anthracene	--	61 U	5,300	24,000	29,000	15,000	12,000	62 U
Benzo(a)anthracene	--	61 U	13,000	32,000	9,900	6,500 J	3,600 J	62 U
Benzo(a)pyrene	--	61 U	17,000	24,000	3,000	1,900 J	1,100 J	62 U
Benzo(b)fluoranthene	--	61 U	11,000	20,000	3,100	1,600 J	880 J	62 U
Benzo(g,h,i)perylene	--	61 U	11,000	11,000	560	370 J	210 J	62 U
Benzo(k)fluoranthene	--	61 U	11,000	16,000	2,400	1,800	1,100	62 U
Benzoic Acid	--	610 UJ	6,600 U	6,200 U	1,600 U	660 U	750 U	620 U
Benzyl Alcohol	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
bis(2-Chloroethoxy) Methane	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Bis-(2-Chloroethyl) Ether	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
bis(2-Ethylhexyl)phthalate	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Butylbenzylphthalate	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Carbazole	--	61 U	2,400	7,200	1,200	470	430	62 U
Chrysene	--	61 U	17,000	38,000	10,000	6,600 J	3,800 J	62 U
Dibenz(a,h)anthracene	--	61 U	3,500	4,000	160 U	78	75 U	62 U
Dibenzofuran	--	61 U	780	19,000	21,000	4,200	4,900	62 U
Diethylphthalate	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Dimethylphthalate	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Di-n-Butylphthalate	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Di-n-Octyl phthalate	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Fluoranthene	--	61 U	23,000	160,000	91,000	51,000 J	30,000 J	62 U
Fluorene	--	61 U	2,700	34,000	62,000	27,000	19,000	62 U
Hexachlorobenzene	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Hexachlorobutadiene	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Hexachlorocyclopentadiene	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
Hexachloroethane	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Indeno(1,2,3-cd)pyrene	--	61 U	8,600	9,200	570	400 J	190 J	62 U
Isophorone	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Naphthalene	--	61 U	5,700	16,000	20,000	3,000	2,800	120
Nitrobenzene	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
N-Nitroso-Di-N-Propylamine	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
N-Nitrosodiphenylamine	--	61 U	660 U	620 U	1,200 U	870 U	480 U	62 U
Pentachlorophenol	--	310 U	3,300 U	3,100 U	780 U	330 U	380 U	310 U
Phenanthrene	--	61 U	25,000	220,000	260,000	140,000	88,000	110
Phenol	--	61 U	660 U	620 U	160 U	66 U	75 U	62 U
Pyrene	--	61 U	28,000	150,000	86,000	52,000 J	31,000 J	62 U

TABLE 2 (Page 5 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q1-Sed
Sample Date and Time	8/28/2008
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)	
Diesel Range Hydrocarbons	14
Motor Oil	66
Gasoline by Method NWTPHG (Concentrations in mg/kg)	
Gasoline Range Hydrocarbons	--
BTEX by Method SW8021B Mod (Concentrations in µg/kg)	
Benzene	--
Ethylbenzene	--
m,p-Xylene	--
o-Xylene	--
Toluene	--
Metals by EPA Method SW6010B (Concentrations in mg/kg)	
Arsenic	6 U
Lead	32
SVOA by Method SW8270D (Concentrations in µg/kg)	
1,2,4-Trichlorobenzene	61 U
1,2-Dichlorobenzene	61 U
1,3-Dichlorobenzene	61 U
1,4-Dichlorobenzene	61 U
1-Methylnaphthalene	61 U
2,2'-Oxybis(1-Chloropropane)	61 U
2,4,5-Trichlorophenol	310 U
2,4,6-Trichlorophenol	310 U
2,4-Dichlorophenol	310 U
2,4-Dimethylphenol	61 U
2,4-Dinitrophenol	610 U
2,4-Dinitrotoluene	310 U
2,6-Dinitrotoluene	310 U
2-Chloronaphthalene	61 U
2-Chlorophenol	61 U
2-Methylnaphthalene	61 U
2-Methylphenol	61 U
2-Nitroaniline	310 U
2-Nitrophenol	61 U
3,3'-Dichlorobenzidine	310 U
3-Nitroaniline	310 U
4,6-Dinitro-2-Methylphenol	610 U
4-Bromophenyl-phenylether	61 U
4-Chloro-3-methylphenol	310 U
4-Chloroaniline	310 U
4-Chlorophenyl-phenylether	61 U
4-Methylphenol	61 U
4-Nitroaniline	310 U
4-Nitrophenol	310 U
Acenaphthene	61 U
Acenaphthylene	61 U
Anthracene	61 U
Benzo(a)anthracene	120
Benzo(a)pyrene	150
Benzo(b)fluoranthene	110
Benzo(g,h,i)perylene	120
Benzo(k)fluoranthene	150
Benzoic Acid	610 U
Benzyl Alcohol	180
bis(2-Chloroethoxy) Methane	61 U
Bis-(2-Chloroethyl) Ether	61 U
bis(2-Ethylhexyl)phthalate	61 U
Butylbenzylphthalate	61 U
Carbazole	61 U
Chrysene	190
Dibenz(a,h)anthracene	61 U
Dibenzofuran	61 U
Diethylphthalate	61 U
Dimethylphthalate	61 U
Di-n-Butylphthalate	61 U
Di-n-Octyl phthalate	61 U
Fluoranthene	230
Fluorene	61 U
Hexachlorobenzene	61 U
Hexachlorobutadiene	61 U
Hexachlorocyclopentadiene	310 U
Hexachloroethane	61 U
Indeno(1,2,3-cd)pyrene	97
Isophorone	61 U
Naphthalene	61 U
Nitrobenzene	61 U
N-Nitroso-Di-N-Propylamine	310 U
N-Nitrosodiphenylamine	61 U
Pentachlorophenol	310 U
Phenanthrene	240
Phenol	61 U
Pyrene	280

TABLE 2 (Page 6 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q2-A-1.0	Q2-A-5.0	Q2-B-1.0	Q2-B-5.0	Q2-C-3.5	Q2-C-5.0	Q2-C-13.0	Q2-C-25.0
Sample Date and Time	8/27/2008 10:35	8/27/2008 10:00	8/27/2008 11:00	8/27/2008 11:00	8/27/2008 16:35	8/27/2008 16:55	8/27/2008 17:00	8/27/2008 17:25
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)								
Diesel Range Hydrocarbons	220	7	33	--	41	6 U	3,000	--
Motor Oil	430	22	100	--	140	11 U	1,400	--
Gasoline by Method NWTPHG (Concentrations in mg/kg)								
Gasoline Range Hydrocarbons	--	--	--	--	--	--	300	--
BTEX by Method SW8021B Mod (Concentrations in µg/kg)								
Benzene	--	--	--	--	--	--	220 U	--
Ethylbenzene	--	--	--	--	--	--	1,000	--
m,p-Xylene	--	--	--	--	--	--	1,200	--
o-Xylene	--	--	--	--	--	--	710	--
Toluene	--	--	--	--	--	--	220 U	--
Metals by EPA Method SW6010B (Concentrations in mg/kg)								
Arsenic	9	5	6	5 U	5 U	6 U	6 U	--
Lead	42	6	25	12	4	2 U	2 U	--
SVOA by Method SW8270D (Concentrations in µg/kg)								
1,2,4-Trichlorobenzene	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
1,2-Dichlorobenzene	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
1,3-Dichlorobenzene	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
1,4-Dichlorobenzene	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
1-Methylnaphthalene	300	66 U	100	96	63 U	63 U	47,000	730
2,2'-Oxybis(1-Chloropropane)	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
2,4,5-Trichlorophenol	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
2,4,6-Trichlorophenol	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
2,4-Dichlorophenol	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
2,4-Dimethylphenol	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
2,4-Dinitrophenol	3,000 U	660 U	630 U	620 U	630 U	630 U	2,400 U	620 U
2,4-Dinitrotoluene	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
2,6-Dinitrotoluene	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
2-Chloronaphthalene	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
2-Chlorophenol	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
2-Methylnaphthalene	300	66 U	110	85	63 U	63 U	82,000	1,200
2-Methylphenol	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
2-Nitroaniline	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
2-Nitrophenol	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
3,3'-Dichlorobenzidine	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
3-Nitroaniline	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
4,6-Dinitro-2-Methylphenol	3,000 U	660 U	630 U	620 U	630 U	630 U	2,400 U	620 U
4-Bromophenyl-phenylether	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
4-Chloro-3-methylphenol	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
4-Chloroaniline	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
4-Chlorophenyl-phenylether	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
4-Methylphenol	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
4-Nitroaniline	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
4-Nitrophenol	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
Acenaphthene	490	66 U	170	180	91	63 U	84,000	970
Acenaphthylene	300 U	66 U	63 U	62 U	270	63 U	3,500	62 U
Anthracene	870	68	290	460	590	63 U	31,000	560
Benzo(a)anthracene	3,000	220	1,000	1,700	4,300	63 U	42,000	440
Benzo(a)pyrene	4,000	280	1,300	2,300	7,500	63 U	36,000	330
Benzo(b)fluoranthene	3,800	240	1,100	2,500	7,300	63 U	31,000	400
Benzo(g,h,i)perylene	1,300	99	430	920	2,000	63 U	5,800	62 U
Benzo(k)fluoranthene	2,700	260	1,100	1,700	4,900	63 U	29,000	320
Benzoic Acid	3,000 U	660 U	630 U	620 U	630 U	630 U	2,400 U	620 U
Benzyl Alcohol	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
bis(2-Chloroethoxy) Methane	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Bis-(2-Chloroethyl) Ether	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
bis(2-Ethylhexyl)phthalate	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Butylbenzylphthalate	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Carbazole	340	66 U	120	510	120	63 U	20,000	260
Chrysene	4,100	330	1,300	2,200	5,900	63 U	28,000	440
Dibenz(a,h)anthracene	320	66 U	94	160	470	63 U	2,200	62 U
Dibenzofuran	300 U	66 U	63 U	68	63 U	63 U	56,000	560
Diethylphthalate	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Dimethylphthalate	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Di-n-Butylphthalate	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Di-n-Octyl phthalate	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Fluoranthene	5,300	430	1,700	4,200	6,400	63 U	120,000	1,500
Fluorene	310	66 U	120	150	92	63 U	81,000	850
Hexachlorobenzene	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Hexachlorobutadiene	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Hexachlorocyclopentadiene	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
Hexachloroethane	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Indeno(1,2,3-cd)pyrene	1,100	89	370	740	2,000	63 U	6,100	66
Isophorone	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Naphthalene	420	66 U	180	93	71	63 U	180,000	3,400
Nitrobenzene	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
N-Nitroso-Di-N-Propylamine	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
N-Nitrosodiphenylamine	300 U	66 U	63 U	62 U	63 U	63 U	2,100 U	62 U
Pentachlorophenol	1,500 U	330 U	310 U	310 U	310 U	310 U	1,200 U	310 U
Phenanthrene	4,500	350	1,500	3,200	1,100	100	200,000	2,300
Phenol	300 U	66 U	63 U	62 U	63 U	63 U	240 U	62 U
Pyrene	6,400	520	2,100	3,800	7,200	90	97,000	1,000

TABLE 2 (Page 7 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q2-D-3.5	Q2-D-5.0	Q2-D-10.0	Q2-D-13.0	Q2-D-18.0	Q2-D-35.0
Sample Date and Time	8/27/08 15:10	8/27/2008 15:12	8/27/08 15:17	8/27/2008 15:23	8/27/2008 15:32	8/27/2008 16:20
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)						
Diesel Range Hydrocarbons	1,300	660	660	560	11,000	6 U
Motor Oil	3,800	1,600	170	260	3,600	11 U
Gasoline by Method NWTPHG (Concentrations in mg/kg)						
Gasoline Range Hydrocarbons	--	--	--	220	390	630
BTEX by Method SW8021B Mod (Concentrations in µg/kg)						
Benzene	--	--	--	38	240	170 U
Ethylbenzene	--	--	--	2,000	7,000	540
m,p-Xylene	--	--	--	1,700	6,600	460
o-Xylene	--	--	--	1,100	3,700	380
Toluene	--	--	--	45	55	170 U
Metals by EPA Method SW6010B (Concentrations in mg/kg)						
Arsenic	6 U	5 U	6 U	7 U	6 U	5 U
Lead	12	2 U	2 U	3 U	2 U	2 U
SVOA by Method SW8270D (Concentrations in µg/kg)						
1,2,4-Trichlorobenzene	300 U	380 U	61 U	64 U	210 U	63 U
1,2-Dichlorobenzene	300 U	380 U	61 U	64 U	210 U	63 U
1,3-Dichlorobenzene	300 U	380 U	61 U	64 U	210 U	63 U
1,4-Dichlorobenzene	300 U	380 U	61 U	64 U	210 U	63 U
1-Methylnaphthalene	2,600	440	21,000	4,800	74,000	63 U
2,2'-Oxybis(1-Chloropropane)	300 U	380 U	61 U	64 U	210 U	63 U
2,4,5-Trichlorophenol	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
2,4,6-Trichlorophenol	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
2,4-Dichlorophenol	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
2,4-Dimethylphenol	300 U	790	61 U	64 U	210 U	63 U
2,4-Dinitrophenol	3,000 U	3,800 U	610 U	640 U	2,100 U	630 U
2,4-Dinitrotoluene	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
2,6-Dinitrotoluene	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
2-Chloronaphthalene	300 U	380 U	61 U	64 U	210 U	63 U
2-Chlorophenol	300 U	380 U	61 U	64 U	210 U	63 U
2-Methylnaphthalene	3,300	380 U	37,000	8,500	130,000	63 U
2-Methylphenol	300 U	380 U	61 U	64 U	210 U	63 U
2-Nitroaniline	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
2-Nitrophenol	300 U	380 U	61 U	64 U	210 U	63 U
3,3'-Dichlorobenzidine	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
3-Nitroaniline	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
4,6-Dinitro-2-Methylphenol	3,000 U	3,800 U	610 U	640 U	2,100 U	630 U
4-Bromophenyl-phenylether	300 U	380 U	61 U	64 U	210 U	63 U
4-Chloro-3-methylphenol	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
4-Chloroaniline	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
4-Chlorophenyl-phenylether	300 U	380 U	61 U	64 U	210 U	63 U
4-Methylphenol	300 U	450	61 U	64 U	210 U	63 U
4-Nitroaniline	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
4-Nitrophenol	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
Acenaphthene	2,300	7,300	32,000	3,200	100,000	63 U
Acenaphthylene	3,400	8,300	730	64 U	960	63 U
Anthracene	8,600	18,000	11,000	1,200	35,000	63 U
Benzo(a)anthracene	41,000	130,000	8,900	1,100	35,000	63 U
Benzo(a)pyrene	73,000	230,000	4,500	1,100	26,000	63 U
Benzo(b)fluoranthene	80,000	260,000	6,300	1,300	25,000	63 U
Benzo(g,h,i)perylene	43,000	86,000	1,100	390	6,000	63 U
Benzo(k)fluoranthene	14,000	160000	3,700	900	14,000	63 U
Benzoic Acid	3,000 U	3,800 U	610 U	640 U	2,100 U	630 U
Benzyl Alcohol	300 U	380 U	61 U	64 U	210 U	63 U
bis(2-Chloroethoxy) Methane	300 U	380 U	61 U	64 U	210 U	63 U
Bis-(2-Chloroethyl) Ether	300 U	380 U	61 U	64 U	210 U	63 U
bis(2-Ethylhexyl)phthalate	300 U	380 U	61 U	64 U	210 U	63 U
Butylbenzylphthalate	300 U	380 U	61 U	64 U	210 U	63 U
Carbazole	2,400	3,800	4,200	1,300	12,000	63 U
Chrysene	57,000	200,000	7,200	1,200	26,000	63 U
Dibenz(a,h)anthracene	13,000	20,000	480	130	2,200	63 U
Dibenzofuran	660	500	20,000	2,000	54,000	63 U
Diethylphthalate	300 U	380 U	61 U	64 U	210 U	63 U
Dimethylphthalate	300 U	380 U	61 U	64 U	210 U	63 U
Di-n-Butylphthalate	300 U	380 U	61 U	64 U	210 U	63 U
Di-n-Octyl phthalate	300 U	380 U	61 U	64 U	210 U	63 U
Fluoranthene	44,000	220,000	37,000	3,300	130,000	110
Fluorene	2,400	1,300	29,000	3,200	88,000	63 U
Hexachlorobenzene	300 U	380 U	61 U	64 U	210 U	63 U
Hexachlorobutadiene	300 U	380 U	61 U	64 U	210 U	63 U
Hexachlorocyclopentadiene	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
Hexachloroethane	300 U	380 U	61 U	64 U	210 U	63 U
Indeno(1,2,3-cd)pyrene	38,000	92,000	1,200	390	6,700	63 U
Isophorone	300 U	380 U	61 U	64 U	210 U	63 U
Naphthalene	5,300	880	50,000	17,000	190,000	130
Nitrobenzene	300 U	380 U	61 U	64 U	210 U	63 U
N-Nitroso-Di-N-Propylamine	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
N-Nitrosodiphenylamine	300 U	380 U	820 U	110 U	2,700 U	63 U
Pentachlorophenol	1,500 U	1,900 U	300 U	320 U	1,100 U	310 U
Phenanthrene	17,000	3,400	78,000	7,800	230,000	180
Phenol	300 U	380 U	61 U	64 U	210 U	63 U
Pyrene	45,000	170,000	26,000	2,400	83,000	81

TABLE 2 (Page 8 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q3-A-1.0	Q3-A-5.0
Sample Date and Time	8/27/2008 11:42	8/27/2008 11:40
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)		
Diesel Range Hydrocarbons	4,200	140
Motor Oil	2,700	150
Gasoline by Method NWTPHG (Concentrations in mg/kg)		
Gasoline Range Hydrocarbons	--	--
BTEX by Method SW8021B Mod (Concentrations in µg/kg)		
Benzene	--	--
Ethylbenzene	--	--
m,p-Xylene	--	--
o-Xylene	--	--
Toluene	--	--
Metals by EPA Method SW6010B (Concentrations in mg/kg)		
Arsenic	14	5 U
Lead	1,040	3
SVOA by Method SW8270D (Concentrations in µg/kg)		
1,2,4-Trichlorobenzene	14,000 U	1,400 U
1,2-Dichlorobenzene	14,000 U	1,400 U
1,3-Dichlorobenzene	14,000 U	1,400 U
1,4-Dichlorobenzene	14,000 U	1,400 U
1-Methylnaphthalene	14,000 U	1,400 U
2,2'-Oxybis(1-Chloropropane)	14,000 U	1,400 U
2,4,5-Trichlorophenol	71,000 U	7,000 U
2,4,6-Trichlorophenol	71,000 U	7,000 U
2,4-Dichlorophenol	71,000 U	7,000 U
2,4-Dimethylphenol	14,000 U	1,400 U
2,4-Dinitrophenol	140,000 U	14,000 U
2,4-Dinitrotoluene	71,000 U	7,000 U
2,6-Dinitrotoluene	71,000 U	7,000 U
2-Chloronaphthalene	14,000 U	1,400 U
2-Chlorophenol	14,000 U	1,400 U
2-Methylnaphthalene	14,000 U	1,400 U
2-Methylphenol	14,000 U	1,400 U
2-Nitroaniline	71,000 U	7,000 U
2-Nitrophenol	14,000 U	1,400 U
3,3'-Dichlorobenzidine	71,000 U	7,000 U
3-Nitroaniline	71,000 U	7,000 U
4,6-Dinitro-2-Methylphenol	140,000 U	14,000 U
4-Bromophenyl-phenylether	14,000 U	1,400 U
4-Chloro-3-methylphenol	71,000 U	7,000 U
4-Chloroaniline	71,000 U	7,000 U
4-Chlorophenyl-phenylether	14,000 U	1,400 U
4-Methylphenol	14,000 U	1,400 U
4-Nitroaniline	71,000 U	7,000 U
4-Nitrophenol	71,000 U	7,000 U
Acenaphthene	84,000	1,400 U
Acenaphthylene	14,000 U	1,400 U
Anthracene	94,000	2,900
Benzo(a)anthracene	360,000	18,000
Benzo(a)pyrene	250,000	12,000
Benzo(b)fluoranthene	280,000	14,000
Benzo(g,h,i)perylene	58,000	2,400
Benzo(k)fluoranthene	260,000	12,000
Benzoic Acid	140,000 U	14,000 U
Benzyl Alcohol	14,000 U	1,400 U
bis(2-Chloroethoxy) Methane	14,000 U	1,400 U
Bis-(2-Chloroethyl) Ether	14,000 U	1,400 U
bis(2-Ethylhexyl)phthalate	14,000 U	1,400 U
Butylbenzylphthalate	14,000 U	1,400 U
Carbazole	23,000	1,400 U
Chrysene	440,000	23,000
Dibenz(a,h)anthracene	16,000	1,400 U
Dibenzofuran	18,000	1,400 U
Diethylphthalate	14,000 U	1,400 U
Dimethylphthalate	14,000 U	1,400 U
Di-n-Butylphthalate	14,000 U	1,400 U
Di-n-Octyl phthalate	14,000 U	1,400 U
Fluoranthene	1,400,000	56,000
Fluorene	44,000	1,400 U
Hexachlorobenzene	14,000 U	1,400 U
Hexachlorobutadiene	14,000 U	1,400 U
Hexachlorocyclopentadiene	71,000 U	7,000 U
Hexachloroethane	14,000 U	1,400 U
Indeno(1,2,3-cd)pyrene	60,000	2,500
Isophorone	14,000 U	1,400 U
Naphthalene	14,000 U	1,400 U
Nitrobenzene	14,000 U	1,400 U
N-Nitroso-Di-N-Propylamine	71,000 U	7,000 U
N-Nitrosodiphenylamine	14,000 U	1,400 U
Pentachlorophenol	71,000 U	7,000 U
Phenanthrene	250,000	3,800
Phenol	14,000 U	1,400 U
Pyrene	870,000	49,000



TABLE 2 (Page 9 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q4-2.5	Q4-15.0	SD-3 (Q4-15.0)	Q4-27.0	Q4-31.0	Q5-14.0	Q5-18.0	Q5-25.5
Sample Date and Time	10/28/2008 8:20	10/28/2008 9:20	10/28/2008 12:00	10/28/2008 9:45	10/28/2008 9:55	10/28/2008 11:15	10/28/2008 11:35	10/28/2008 12:05
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)								
Diesel Range Hydrocarbons	1,300	5,800	7,200	6.2 U	5.8 U	6.7 U	220	5.8 U
Motor Oil	2,300	2,500	3,000	12 U	12 U	20	54	12 U
Gasoline by Method NWTPHG (Concentrations in mg/kg)								
Gasoline Range Hydrocarbons	--	2,800	3400	--	21	8.1 U	3,900	--
BTEX by Method SW8021B Mod (Concentrations in µg/kg)								
Benzene	--	750 J	340 J	--	29	20 U	97 U	--
Ethylbenzene	--	13,000	14,000	--	220	20 U	5,800	--
m,p-Xylene	--	13,000	14,000	--	61	41 U	8,500	--
o-Xylene	--	7,000	7,500	--	110	20 U	3,800	--
Toluene	--	1,200	880	--	9 U	20 U	97 U	--
Metals by EPA Method SW6010B (Concentrations in mg/kg)								
Arsenic	19	7 U	6 U	6 U	6 U	6 U	6 U	6 U
Lead	80	3 U	3 U	2 U	2 U	2 U	2 U	2 U
SVOA by Method SW8270D (Concentrations in µg/kg)								
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--
1-Methylnaphthalene	2,200	250,000	210,000	66	60 U	56 U	1,700	58 U
2,2'-Oxybis(1-Chloropropane)	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--	--
2-Methylnaphthalene	3,200	400,000	320,000	120	63	56 U	2,500	67
2-Methylphenol	--	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--	--	--
Acenaphthene	3,700	260,000	200,000	59 U	60 U	56 U	2,500	58 U
Acenaphthylene	1,900	12,000 U	9,900	59 U	60 U	56 U	65 U	58 U
Anthracene	35,000	78,000	72,000	59 U	60 U	56 U	1,400	58 U
Benzo(a)anthracene	19,000	110,000	69,000	59 U	60 U	56 U	950	58 U
Benzo(a)pyrene	17,000	81,000	49,000	59 U	60 U	56 U	600	58 U
Benzo(b)fluoranthene	14,000	68,000	47,000	59 U	60 U	56 U	570	58 U
Benzo(g,h,i)perylene	4,400	24,000	17,000	59 U	60 U	56 U	190	58 U
Benzo(k)fluoranthene	12,000	57,000	36,000	59 U	60 U	56 U	380	58 U
Benzoic Acid	--	--	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy) Methane	--	--	--	--	--	--	--	--
Bis-(2-Chloroethyl) Ether	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--	--
Carbazole	--	--	--	--	--	--	--	--
Chrysene	70,000	71,000	52,000	59 U	60 U	56 U	890	58 U
Dibenz(a,h)anthracene	2,600	12,000 U	7,600	59 U	60 U	56 U	67	58 U
Dibenzofuran	2,600	130,000 J	76,000 J	59 U	60 U	56 U	1,200	58 U
Diethylphthalate	--	--	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	--	--	--	--	--	--
Di-n-Octyl phthalate	--	--	--	--	--	--	--	--
Fluoranthene	35,000	300,000	210,000	59 U	60 U	56 U	3,200	58 U
Fluorene	5,700	190,000	150,000	59 U	60 U	56 U	2,500	58 U
Hexachlorobenzene	--	--	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	4,900	25,000	16,000	59 U	60 U	56 U	170	58 U
Isophorone	--	--	--	--	--	--	--	--
Naphthalene	8,500	860,000	680,000	350	230	85	2,200	190
Nitrobenzene	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--	--	--
Phenanthrene	28,000	560,000	440,000	69	60 U	58	8,300	58 U
Phenol	--	--	--	--	--	--	--	--
Pyrene	40,000	270,000	190,000	59 U	60 U	56 U	3,000	58 U

TABLE 2 (Page 10 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q6-4.0	Q6-18.0	Q6-22.5	Q7-4.0	Q7-5.5	Q7-9.0	Q7-19.5
Sample Date and Time	10/28/2008 12:30	10/28/2008 13:00	10/28/2008 13:10	10/29/2008 8:40	10/29/2008 8:45	10/29/2008 9:00	10/29/2008 9:10
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)							
Diesel Range Hydrocarbons	9,200	20,000	6.1	1,400	4,500	2,800	6.2 U
Motor Oil	13,000	7,300	12 U	2,000	5,700	470	21
Gasoline by Method NWTPHG (Concentrations in mg/kg)							
Gasoline Range Hydrocarbons	--	3,500	--	--	--	250	4.3
BTEX by Method SW8021B Mod (Concentrations in µg/kg)							
Benzene	--	180 U	--	--	--	63	11 U
Ethylbenzene	--	470	--	--	--	880	11 U
m,p-Xylene	--	620	--	--	--	320	21 U
o-Xylene	--	180 U	--	--	--	470	11 U
Toluene	--	180 U	--	--	--	100	11 U
Metals by EPA Method SW6010B (Concentrations in mg/kg)							
Arsenic	16	6 U	6 U	7	7	6 U	7 U
Lead	7	2 U	2 U	8	2 U	2 U	3
SVOA by Method SW8270D (Concentrations in µg/kg)							
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--
1-Methylnaphthalene	88,000	280,000	58 U	4,200	58,000	38,000	64 U
2,2'-Oxybis(1-Chloropropane)	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--
2-Methylnaphthalene	140,000	560,000	88	5,500	82,000	63,000	64 U
2-Methylphenol	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--	--
Acenaphthene	600,000	860,000	130	6,600	57,000	360,000	64 U
Acenaphthylene	9,200 U	46,000 U	58 U	190 U	1,700 U	19,000 U	64 U
Anthracene	590,000	150,000	58 U	8,900	84,000	45,000	64 U
Benzo(a)anthracene	1,100,000	310,000	58 U	22,000	84,000	46,000	64 U
Benzo(a)pyrene	1,400,000	130,000	58 U	25,000	99,000	19,000 U	64 U
Benzo(b)fluoranthene	960,000	150,000	58 U	19,000	53,000	19,000 U	64 U
Benzo(g,h,i)perylene	1,100,000	46,000 U	58 U	7,200	33,000	19,000 U	64 U
Benzo(k)fluoranthene	660,000	95,000	58 U	15,000	68,000	19,000 U	64 U
Benzoic Acid	--	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--	--
bis(2-Chloroethoxy) Methane	--	--	--	--	--	--	--
Bis-(2-Chloroethyl) Ether	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--
Carbazole	--	--	--	--	--	--	--
Chrysene	1,500,000	190,000	58 U	27,000	100,000	42,000	64 U
Dibenz(a,h)anthracene	190,000	46,000 U	58 U	2,400	9,100	19,000 U	64 U
Dibenzofuran	34,000	540,000	58 U	1,900	10,000	100,000	64 U
Diethylphthalate	--	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	--	--	--	--	--
Di-n-Octyl phthalate	--	--	--	--	--	--	--
Fluoranthene	2,200,000	1,300,000	85	39,000	120,000	340,000	64 U
Fluorene	350,000	660,000	58 U	6,100	54,000	180,000	64 U
Hexachlorobenzene	--	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	730,000	46,000 U	58 U	6,900	27,000	19,000 U	64 U
Isophorone	--	--	--	--	--	--	--
Naphthalene	95,000	960,000	200	9,700	160,000	66,000	64 U
Nitrobenzene	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--	--
Phenanthrene	2,800,000	2,200,000	160	38,000	290,000	760,000	130
Phenol	--	--	--	--	--	--	--
Pyrene	3,200,000	900,000	58 U	46,000	220,000	260,000	64 U

TABLE 2 (Page 11 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q8-3.5	Q8-16.0	Q8-24.0	Q8-28.0	Q9-18.0	Q9-25.0	Q9-28.0
Sample Date and Time	10/29/2008 12:15	10/29/2008 12:25	10/29/2008 12:35	10/29/2008 12:40	10/29/2008 13:15	10/29/2008 13:35	10/29/2008 13:40
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)							
Diesel Range Hydrocarbons	870	10	6.3 U	6.1 U	12,000	730	6.3
Motor Oil	2,800	48	13 U	12 U	5,900	270	12 U
Gasoline by Method NWTPHG (Concentrations in mg/kg)							
Gasoline Range Hydrocarbons	--	4.9 U	--	--	1,600	--	12
BTEX by Method SW8021B Mod (Concentrations in µg/kg)							
Benzene	--	12 U	--	--	270	--	16
Ethylbenzene	--	12 U	--	--	6,600	--	60
m,p-Xylene	--	25 U	--	--	8,000	--	33
o-Xylene	--	12 U	--	--	3,600	--	28
Toluene	--	12 U	--	--	1,300	--	4.5 U
Metals by EPA Method SW6010B (Concentrations in mg/kg)							
Arsenic	12	6 U	6 U	6 U	6 U	6 U	6 U
Lead	88	2 U	2 U	2 U	2 U	2 U	2 U
SVOA by Method SW8270D (Concentrations in µg/kg)							
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--
1-Methylnaphthalene	620	61 U	66	61 U	230,000	32,000	520
2,2'-Oxybis(1-Chloropropane)	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--
2-Methylnaphthalene	860	61 U	84	61 U	380,000	49,000	780
2-Methylphenol	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--	--
Acenaphthene	860	97	61 U	61 U	330,000	33,000	190
Acenaphthylene	560 U	61 U	61 U	61 U	15,000 U	1,200 U	60 U
Anthracene	5,300	61 U	61 U	61 U	88,000	12,000	60 U
Benzo(a)anthracene	12,000	61 U	61 U	61 U	130,000	10,000	60 U
Benzo(a)pyrene	12,000	61 U	61 U	61 U	99,000	6,800	60 U
Benzo(b)fluoranthene	14,000	61 U	61 U	61 U	78,000	5,800	60 U
Benzo(g,h,i)perylene	5,100	61 U	61 U	61 U	38,000	2,400	60 U
Benzo(k)fluoranthene	13,000	61 U	61 U	61 U	70,000	4,400	60 U
Benzoic Acid	--	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--	--
bis(2-Chloroethoxy) Methane	--	--	--	--	--	--	--
Bis-(2-Chloroethyl) Ether	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--
Carbazole	--	--	--	--	--	--	--
Chrysene	28,000	61 U	61 U	61 U	84,000	8,300	60 U
Dibenz(a,h)anthracene	2,000	61 U	61 U	61 U	15,000 U	1,200 U	60 U
Dibenzofuran	560 U	61 U	61 U	61 U	160,000	11,000	60 U
Diethylphthalate	--	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	--	--	--	--	--
Di-n-Octyl phthalate	--	--	--	--	--	--	--
Fluoranthene	17,000	61 U	61 U	61 U	390,000	31,000	60 U
Fluorene	710	61 U	61 U	61 U	240,000	23,000	60 U
Hexachlorobenzene	--	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	5,000	61 U	61 U	61 U	34,000	2,300	60 U
Isophorone	--	--	--	--	--	--	--
Naphthalene	820	150	620	380	860,000	58,000	4,000
Nitrobenzene	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--	--
Phenanthrene	10,000	61 U	61 U	61 U	720,000	68,000	120
Phenol	--	--	--	--	--	--	--
Pyrene	18,000	61 U	61 U	61 U	330,000	29,000	60 U



TABLE 2 (Page 12 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q10-5.0	Q10-19.0	Q10-26.0	Q11-11.5	Q11-18.0	Q11-26.0
Sample Date and Time	10/29/2008 14:15	10/29/2008 14:55	10/29/2008 15:05	10/30/2008 7:55	10/30/2008 8:05	10/30/2008 8:10
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)						
Diesel Range Hydrocarbons	710	13	6.1 U	2,200	19	7
Motor Oil	1,300	53	12 U	1,100	15	12 U
Gasoline by Method NWTPHG (Concentrations in mg/kg)						
Gasoline Range Hydrocarbons	--	--	2 U	6.6	--	2.1 U
BTEX by Method SW8021B Mod (Concentrations in µg/kg)						
Benzene	--	--	5 U	5.2 U	--	5.2 U
Ethylbenzene	--	--	5 U	5.2 U	--	5.2 U
m,p-Xylene	--	--	9.9 U	10 U	--	10 U
o-Xylene	--	--	5 U	5.2 U	--	5.2 U
Toluene	--	--	5 U	5.2 U	--	5.2 U
Metals by EPA Method SW6010B (Concentrations in mg/kg)						
Arsenic	6 U	6 U	6 U	6 U	6 U	6 U
Lead	47	3 U	2 U	2 U	3 U	2 U
SVOA by Method SW8270D (Concentrations in µg/kg)						
1,2,4-Trichlorobenzene	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--
1-Methylnaphthalene	2,000	320	60 U	20,000	480	82
2,2'-Oxybis(1-Chloropropane)	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--
2-Methylnaphthalene	2,300	99	60 U	35,000	910	160
2-Methylphenol	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	--	--	--	--	--	--
4-Bromophenyl-phenylether	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--
Acenaphthene	2,200	480	60 U	84,000	1,000	250
Acenaphthylene	63 U	64 U	60 U	4,000 U	61 U	64 U
Anthracene	3,600	64 U	60 U	67,000	61 U	64 U
Benzo(a)anthracene	15,000	64 U	71	39,000	61 U	64 U
Benzo(a)pyrene	17,000	64 U	78	17,000	61 U	64 U
Benzo(b)fluoranthene	13,000	64 U	68	18,000	61 U	64 U
Benzo(g,h,i)perylene	5,000	64 U	60 U	5,700	61 U	64 U
Benzo(k)fluoranthene	14,000	64 U	60 U	13,000	61 U	64 U
Benzoic Acid	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--
bis(2-Chloroethoxy) Methane	--	--	--	--	--	--
Bis-(2-Chloroethyl) Ether	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--
Carbazole	--	--	--	--	--	--
Chrysene	17,000	64 U	68	100,000	61 U	64
Dibenz(a,h)anthracene	2,200	64 U	60 U	4,000 U	61 U	64 U
Dibenzofuran	1,300	64 U	60 U	62,000	640	230
Diethylphthalate	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	--	--	--	--
Di-n-Octyl phthalate	--	--	--	--	--	--
Fluoranthene	24,000	64 U	100	140,000	61 U	92
Fluorene	1,900	64 U	60 U	93,000	570	180
Hexachlorobenzene	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	10,000	64 U	60 U	5,600	61 U	64 U
Isophorone	--	--	--	--	--	--
Naphthalene	2,800	64 U	60 U	48,000	170	160
Nitrobenzene	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--
Phenanthrene	20,000	64 U	100	250,000	360	530
Phenol	--	--	--	--	--	--
Pyrene	22,000	64 U	90	97,000	61 U	64 U

TABLE 2 (Page 13 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q12-4.5	Q12-15.0	Q12-20.5	Q13-10.0	Q13-15.0	Q13-22.0	SD-4 (Q13-22.0)
Sample Date and Time	10/30/2008 8:40	10/30/2008 8:55	10/30/2008 9:00	10/28/2008 13:40	10/28/2008 13:55	10/28/2008 14:10	10/28/2008 13:00
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)							
Diesel Range Hydrocarbons	12,000	11	6.1 U	6.3 U	10 U	5.6 U	5.3 U
Motor Oil	20,000	56	12 U	13 U	80	11 U	10 U
Gasoline by Method NWTPHG (Concentrations in mg/kg)							
Gasoline Range Hydrocarbons	--	2 U	--	2.4 U	--	6.5	5.2
BTEX by Method SW8021B Mod (Concentrations in µg/kg)							
Benzene	--	5 U	--	6.1 U	--	9.6 U	8 U
Ethylbenzene	--	5 U	--	6.1 U	--	9.6 U	8 U
m,p-Xylene	--	10 U	--	12 U	--	19 U	16 U
o-Xylene	--	5 U	--	6.1 U	--	9.6 U	8 U
Toluene	--	5 U	--	6.1 U	--	9.6 U	8 U
Metals by EPA Method SW6010B (Concentrations in mg/kg)							
Arsenic	25	7 U	6 U	6 U	7 U	6 U	9
Lead	117	3 U	2 U	3 U	3 U	2 U	3 U
SVOA by Method SW8270D (Concentrations in µg/kg)							
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--
1-Methylnaphthalene	130,000	64 U	61 U	63 U	65 U	65 U	180 U
2,2'-Oxybis(1-Chloropropane)	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--
2-Methylnaphthalene	160,000	64 U	61 U	63 U	65 U	65 U	180 U
2-Methylphenol	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--	--
Acenaphthene	120,000	64 U	61 U	63 U	65 U	65 U	180 U
Acenaphthylene	17,000 U	64 U	61 U	63 U	65 U	65 U	180 U
Anthracene	160,000	64 U	61 U	63 U	65 U	65 U	180 U
Benzo(a)anthracene	440,000	64 U	61 U	63 U	65 U	65 U	180 U
Benzo(a)pyrene	500,000	64 U	61 U	63 U	65 U	65 U	180 U
Benzo(b)fluoranthene	320,000	64 U	61 U	63 U	65 U	65 U	180 U
Benzo(g,h,i)perylene	280,000	64 U	61 U	63 U	65 U	65 U	180 U
Benzo(k)fluoranthene	260,000	64 U	61 U	63 U	65 U	65 U	180 U
Benzoic Acid	--	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--	--
bis(2-Chloroethoxy) Methane	--	--	--	--	--	--	--
Bis-(2-Chloroethyl) Ether	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--
Carbazole	--	--	--	--	--	--	--
Chrysene	590,000	64 U	61 U	63 U	65 U	65 U	180 U
Dibenz(a,h)anthracene	82,000	64 U	61 U	63 U	65 U	65 U	180 U
Dibenzofuran	28,000	64 U	61 U	63 U	65 U	65 U	180 U
Diethylphthalate	--	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	--	--	--	--	--
Di-n-Octyl phthalate	--	--	--	--	--	--	--
Fluoranthene	670,000	64 U	70	63 U	65 U	65 U	180 U
Fluorene	95,000	64 U	61 U	63 U	65 U	65 U	180 U
Hexachlorobenzene	--	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	230,000	64 U	61 U	63 U	65 U	65 U	180 U
Isophorone	--	--	--	--	--	--	--
Naphthalene	170,000	64 U	61 U	63 U	65 U	65 U	180 U
Nitrobenzene	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--	--
Phenanthrene	950,000	64 U	160	63 U	65 U	65 U	180
Phenol	--	--	--	--	--	--	--
Pyrene	940,000	64 U	110	63 U	65 U	65 U	180 U

TABLE 2 (Page 14 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q14-2.5	Q14-6.5	Q14-15.5	Q14-22.0	Q15-4.0	Q15-16.0	SD-5 (Q15-16.0)	Q15-20.0
Sample Date and Time	10/29/2008 9:05	10/29/2008 9:30	10/29/2008 9:45	10/29/2008 9:55	10/30/2008 9:40	10/30/2008 9:45	10/30/2008 12:00	10/30/2008 9:55
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)								
Diesel Range Hydrocarbons	6.1	310	9 U	6.6 U	860	5.5 U	5.4 U	6.8 U
Motor Oil	18	470	78	20	1,600	11 U	11 U	37
Gasoline by Method NWTPHG (Concentrations in mg/kg)								
Gasoline Range Hydrocarbons	--	--	7.7 U	5.1 U	--	3 U	2.9 U	--
BTEX by Method SW8021B Mod (Concentrations in µg/kg)								
Benzene	--	--	19 U	13 U	--	7.4 U	7.3 U	--
Ethylbenzene	--	--	19 U	13 U	--	7.4 U	7.3 U	--
m,p-Xylene	--	--	39 U	25 U	--	15 U	15 U	--
o-Xylene	--	--	19 U	13 U	--	7.4 U	7.3 U	--
Toluene	--	--	19 U	13 U	--	7.4 U	7.3 U	--
Metals by EPA Method SW6010B (Concentrations in mg/kg)								
Arsenic	7 U	10	8 U	6 U	9	5 U	6 U	7 U
Lead	9	7	3 U	2 U	20	2 U	2 U	3 U
SVOA by Method SW8270D (Concentrations in µg/kg)								
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--
1-Methylnaphthalene	60 U	11,000	65 U	63 U	7,200	60 U	63 U	62 U
2,2'-Oxybis(1-Chloropropane)	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--	--
2-Methylnaphthalene	60 U	14,000	65 U	63 U	7,800	60 U	63 U	62 U
2-Methylphenol	--	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--	--	--
Acenaphthene	60 U	10,000	65 U	63 U	7,900	60 U	63 U	62 U
Acenaphthylene	60 U	640 U	65 U	63 U	600 U	60 U	63 U	62 U
Anthracene	60 U	14,000	65 U	63 U	12,000	60 U	63 U	62 U
Benzo(a)anthracene	60 U	24,000	65 U	63 U	31,000	60 U	63 U	62 U
Benzo(a)pyrene	60 U	29,000	65 U	63 U	38,000	60 U	63 U	62 U
Benzo(b)fluoranthene	60 U	20,000	65 U	63 U	25,000	60 U	63 U	62 U
Benzo(g,h,i)perylene	60 U	20,000	65 U	63 U	23,000	60 U	63 U	62 U
Benzo(k)fluoranthene	60 U	13,000	65 U	63 U	21,000	60 U	63 U	62 U
Benzoic Acid	--	--	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy) Methane	--	--	--	--	--	--	--	--
Bis-(2-Chloroethyl) Ether	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--	--
Carbazole	--	--	--	--	--	--	--	--
Chrysene	60 U	30,000	65 U	63 U	43,000	60 U	63 U	62 U
Dibenz(a,h)anthracene	60 U	5,400	65 U	63 U	7,700	60 U	63 U	62 U
Dibenzofuran	60 U	1,100	65 U	63 U	660	60 U	63 U	62 U
Diethylphthalate	--	--	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	--	--	--	--	--	--
Di-n-Octyl phthalate	--	--	--	--	--	--	--	--
Fluoranthene	70	39,000	65 U	63 U	45,000	60 U	63 U	62 U
Fluorene	60 U	8,800	65 U	63 U	5700	60 U	63 U	62 U
Hexachlorobenzene	--	--	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	60 U	13,000	65 U	63 U	17,000	60 U	63 U	62 U
Isophorone	--	--	--	--	--	--	--	--
Naphthalene	60 U	32,000	200	63 U	12,000	90	63 U	62 U
Nitrobenzene	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--	--	--
Phenanthrene	92	70,000	75	63 U	72,000	60 U	63 U	62 U
Phenol	--	--	--	--	--	--	--	--
Pyrene	100	65,000	65 U	63 U	87,000	60 U	63 U	62 U

TABLE 2 (Page 15 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q16-3.5	Q16-20.0	Q16-28.0	Q17-11.0	Q17-18.0	Q17-25.0
Sample Date and Time	10/29/2008 11:25	10/29/2008 11:45	10/29/2008 11:55	10/28/2008 14:40	10/28/2008 14:55	10/28/2008 15:20
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)						
Diesel Range Hydrocarbons	19	6.3 U	5.1 U	5.9 U	6.7	6 U
Motor Oil	34	13 U	10 U	12 U	12 U	12 U
Gasoline by Method NWTPHG (Concentrations in mg/kg)						
Gasoline Range Hydrocarbons	--	4.1 U	--	4.4 U	--	--
BTEX by Method SW8021B Mod (Concentrations in µg/kg)						
Benzene	--	10 U	--	11 U	--	--
Ethylbenzene	--	10 U	--	11 U	--	--
m,p-Xylene	--	20 U	--	22 U	--	--
o-Xylene	--	10 U	--	11 U	--	--
Toluene	--	10 U	--	11 U	--	--
Metals by EPA Method SW6010B (Concentrations in mg/kg)						
Arsenic	5 U	6 U	6 U	7 U	6 U	6 U
Lead	7	2 U	2 U	3 U	2 U	2 U
SVOA by Method SW8270D (Concentrations in µg/kg)						
1,2,4-Trichlorobenzene	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--
1-Methylnaphthalene	61 U	61 U	52 U	60 U	60 U	59 U
2,2'-Oxybis(1-Chloropropane)	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--
2-Methylnaphthalene	61 U	61 U	52 U	60 U	60 U	59 U
2-Methylphenol	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	--	--	--	--	--	--
4-Bromophenyl-phenylether	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--
Acenaphthene	61 U	61 U	52 U	60 U	60 U	59 U
Acenaphthylene	61 U	61 U	52 U	60 U	60 U	59 U
Anthracene	66	61 U	52 U	60 U	60 U	59 U
Benzo(a)anthracene	110	61 U	52 U	60 U	60 U	59 U
Benzo(a)pyrene	140	220	52 U	60 U	60 U	59 U
Benzo(b)fluoranthene	160	61 U	52 U	60 U	60 U	59 U
Benzo(g,h,i)perylene	95	61 U	52 U	60 U	60 U	59 U
Benzo(k)fluoranthene	120	61 U	52 U	60 U	60 U	59 U
Benzoic Acid	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--
bis(2-Chloroethoxy) Methane	--	--	--	--	--	--
Bis-(2-Chloroethyl) Ether	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--
Carbazole	--	--	--	--	--	--
Chrysene	200	61 U	52 U	60 U	60 U	59 U
Dibenz(a,h)anthracene	61 U	61 U	52 U	60 U	60 U	59 U
Dibenzofuran	61 U	61 U	52 U	60 U	60 U	59 U
Diethylphthalate	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	--	--	--	--
Di-n-Octyl phthalate	--	--	--	--	--	--
Fluoranthene	220	61 U	52 U	60 U	60 U	59 U
Fluorene	61 U	61 U	52 U	60 U	60 U	59 U
Hexachlorobenzene	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	86	61 U	52 U	60 U	60 U	59 U
Isophorone	--	--	--	--	--	--
Naphthalene	76	70	52 U	73	60 U	59 U
Nitrobenzene	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--
Phenanthrene	130	61 U	52 U	60 U	60 U	59 U
Phenol	--	--	--	--	--	--
Pyrene	230	61 U	52 U	60 U	60 U	59 U

TABLE 2 (Page 16 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	QRM-1-1.0	QRM-1-2.0	QRM-2-1.0	QRM-2-2.0	QRM-3-1.0	QRM-3-2.0	QRM-4-1.0	QRM-4-2.0
Sample Date and Time	11/1/2008 10:15	11/1/2008 10:20	11/1/2008 10:40	11/1/2008 10:45	11/1/2008 11:00	11/1/2008 11:05	11/1/2008 11:20	11/1/2008 11:25
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)								
Diesel Range Hydrocarbons	67	50	21	8.4	6	6.6	59	5.4 U
Motor Oil	170	93	84	21	31	27	140	16
Gasoline by Method NWTPHG (Concentrations in mg/kg)								
Gasoline Range Hydrocarbons	--	--	--	--	--	--	--	--
BTEX by Method SW8021B Mod (Concentrations in µg/kg)								
Benzene	--	--	--	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--
m,p-Xylene	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--
Metals by EPA Method SW6010B (Concentrations in mg/kg)								
Arsenic	5 U	9	10 U	5 U	8	5 U	14	5 U
Lead	28	47	70	19	58	18	39	3
SVOA by Method SW8270D (Concentrations in µg/kg)								
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--
1-Methylnaphthalene	190	90	56 U	61 U	61 U	54 U	200	55 U
2,2'-Oxybis(1-Chloropropane)	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--	--	--
2-Methylnaphthalene	240	140	56 U	61 U	61 U	54 U	290	55 U
2-Methylphenol	--	--	--	--	--	--	--	--
2-Nitroaniline	--	--	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--	--	--
Acenaphthene	200	59 U	56 U	61 U	61 U	54 U	64 U	55 U
Acenaphthylene	68	96	56 U	61 U	61 U	54 U	89	55 U
Anthracene	260	120	56 U	61 U	61 U	54 U	150	55 U
Benzo(a)anthracene	710	300	100	110	61 U	54 U	310	55 U
Benzo(a)pyrene	960	460	130	200	83	54 U	330	55 U
Benzo(b)fluoranthene	720	690	130	270	110	54 U	780	55 U
Benzo(g,h,i)perylene	530	280	140	120	61 U	54 U	220	55 U
Benzo(k)fluoranthene	540	420	82	150	79	54 U	310	55 U
Benzoic Acid	--	--	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy) Methane	--	--	--	--	--	--	--	--
Bis-(2-Chloroethyl) Ether	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--	--
Butylbenzylphthalate	--	--	--	--	--	--	--	--
Carbazole	--	--	--	--	--	--	--	--
Chrysene	1,100	640	170	300	99	54 U	490	55 U
Dibenz(a,h)anthracene	120	98	56 U	61 U	61 U	54 U	84	55 U
Dibenzofuran	64 U	67	56 U	61 U	61 U	54 U	250	55 U
Diethylphthalate	--	--	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--	--	--
Di-n-Butylphthalate	--	--	--	--	--	--	--	--
Di-n-Octyl phthalate	--	--	--	--	--	--	--	--
Fluoranthene	1,200	520	180	76	110	54 U	770	55 U
Fluorene	92	59 U	56 U	61 U	61 U	54 U	64 U	55 U
Hexachlorobenzene	--	--	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	450	260	100	110	61 U	54 U	260	55 U
Isophorone	--	--	--	--	--	--	--	--
Naphthalene	220	160	56 U	61 U	61 U	54 U	230	55 U
Nitrobenzene	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--	--	--
Phenanthrene	1,400	380	200	61 U	93	54 U	630	55 U
Phenol	--	--	--	--	--	--	--	--
Pyrene	1,700	560	240	84	110	54 U	580	55 U

TABLE 2 (Page 17 of 17)  
Soil Testing Results - Primary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	QRM-5-1.0	QRM-5-2.0
Sample Date and Time	11/1/2008 11:35	11/1/2008 11:40
Fuels by Method NWTPH-Dx (Concentrations in mg/kg)		
Diesel Range Hydrocarbons	9.3	5.4
Motor Oil	19	13
Gasoline by Method NWTPHG (Concentrations in mg/kg)		
Gasoline Range Hydrocarbons	--	--
BTEX by Method SW8021B Mod (Concentrations in µg/kg)		
Benzene	--	--
Ethylbenzene	--	--
m,p-Xylene	--	--
o-Xylene	--	--
Toluene	--	--
Metals by EPA Method SW6010B (Concentrations in mg/kg)		
Arsenic	6	5 U
Lead	9	13
SVOA by Method SW8270D (Concentrations in µg/kg)		
1,2,4-Trichlorobenzene	--	--
1,2-Dichlorobenzene	--	--
1,3-Dichlorobenzene	--	--
1,4-Dichlorobenzene	--	--
1-Methylnaphthalene	62 U	60 U
2,2'-Oxybis(1-Chloropropane)	--	--
2,4,5-Trichlorophenol	--	--
2,4,6-Trichlorophenol	--	--
2,4-Dichlorophenol	--	--
2,4-Dimethylphenol	--	--
2,4-Dinitrophenol	--	--
2,4-Dinitrotoluene	--	--
2,6-Dinitrotoluene	--	--
2-Chloronaphthalene	--	--
2-Chlorophenol	--	--
2-Methylnaphthalene	62 U	60 U
2-Methylphenol	--	--
2-Nitroaniline	--	--
2-Nitrophenol	--	--
3,3'-Dichlorobenzidine	--	--
3-Nitroaniline	--	--
4,6-Dinitro-2-Methylphenol	--	--
4-Bromophenyl-phenylether	--	--
4-Chloro-3-methylphenol	--	--
4-Chloroaniline	--	--
4-Chlorophenyl-phenylether	--	--
4-Methylphenol	--	--
4-Nitroaniline	--	--
4-Nitrophenol	--	--
Acenaphthene	62 U	60 U
Acenaphthylene	62 U	60 U
Anthracene	62 U	60 U
Benzo(a)anthracene	62 U	60 U
Benzo(a)pyrene	62 U	60 U
Benzo(b)fluoranthene	62 U	60 U
Benzo(g,h,i)perylene	62 U	60 U
Benzo(k)fluoranthene	62 U	60 U
Benzoic Acid	--	--
Benzyl Alcohol	--	--
bis(2-Chloroethoxy) Methane	--	--
Bis-(2-Chloroethyl) Ether	--	--
bis(2-Ethylhexyl)phthalate	--	--
Butylbenzylphthalate	--	--
Carbazole	--	--
Chrysene	62 U	60 U
Dibenz(a,h)anthracene	62 U	60 U
Dibenzofuran	62 U	60 U
Diethylphthalate	--	--
Dimethylphthalate	--	--
Di-n-Butylphthalate	--	--
Di-n-Octyl phthalate	--	--
Fluoranthene	62 U	60 U
Fluorene	62 U	60 U
Hexachlorobenzene	--	--
Hexachlorobutadiene	--	--
Hexachlorocyclopentadiene	--	--
Hexachloroethane	--	--
Indeno(1,2,3-cd)pyrene	62 U	60 U
Isophorone	--	--
Naphthalene	62 U	60 U
Nitrobenzene	--	--
N-Nitroso-Di-N-Propylamine	--	--
N-Nitrosodiphenylamine	--	--
Pentachlorophenol	--	--
Phenanthrene	62 U	60 U
Phenol	--	--
Pyrene	62 U	60 U

**Notes:**  
Data Qualifiers: U = Not detected at or above the Method Reporting Limit (the value shown). D = Sample concentration exceeded the calibration range of the testing instrument, and sample was diluted and retested.

TABLE 3  
Soil Testing Results - Secondary Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q1-D-2.0	Q1-D-3.5	Q1-Sed	Q2-D-3.5	Q2-D-5.0
Sample Date and Time	8/27/2008 13:05	8/27/2008 13:07	8/28/2008	8/27/2008 15:10	8/27/2008 15:12
Metals by EPA Method SW6010B (Concentrations in mg/kg)					
Chromium	19.8	30.1	--	26	25
Copper	35.5	18	--	52	10
Nickel	26	33	--	35	26
Zinc	58	41	--	140	35
Pesticides by Method SW8081 (Concentrations in µg/kg)					
4,4'-DDD	3.1 U	3.1 U	--	32 U	32 U
4,4'-DDE	3.1 U	3.1 U	--	32 U	32 U
4,4'-DDT	3.1 U	3.1 U	--	32 U	32 U
Aldrin	1.6 U	1.6 U	--	16 U	41 U
alpha Chlordane	1.6 U	1.6 U	--	16 U	16 U
alpha-BHC	24 U	1.6 U	--	16 U	16 U
beta-BHC	1.6 U	1.6 U	--	16 U	16 U
delta-BHC	1.6 U	1.6 U	--	28 U	41 U
Dieldrin	3.1 U	3.1 U	--	32 U	32 U
Endosulfan I	1.6 U	1.6 U	--	16 U	16 U
Endosulfan II	3.1 U	3.1 U	--	32 U	32 U
Endosulfan Sulfate	3.1 U	3.1 U	--	32 U	32 U
Endrin	3.1 U	3.1 U	--	32 U	32 U
Endrin Aldehyde	3.1 U	3.1 U	--	32 U	32 U
Endrin Ketone	3.1 U	3.1 U	--	32 U	32 U
gamma Chlordane	1.6 U	1.6 U	--	16 U	86 U
gamma-BHC (Lindane)	1.6 U	1.6 U	--	16 U	16 U
Heptachlor	1.6 U	1.6 U	--	16 U	16 U
Heptachlor Epoxide	1.6 U	1.6 U	--	16 U	16 U
Methoxychlor	16 U	16 U	--	160 U	160 U
Toxaphene	160 U	160 U	--	1,600 U	1,600 U
Aroclors by Method SW8082 (Concentrations in µg/kg)					
Aroclor 1016	31 U	32 U	--	29 U	32 U
Aroclor 1221	31 U	32 U	--	29 U	32 U
Aroclor 1232	31 U	32 U	--	29 U	32 U
Aroclor 1242	31 U	32 U	--	29 U	32 U
Aroclor 1248	31 U	32 U	--	29 U	65 U
Aroclor 1254	31 U	32 U	--	29 U	32 U
Aroclor 1260	31 U	32 U	--	29 U	32 U
Metals by EPA Method SW6010B (Concentrations in mg/kg)					
Cadmium	--	--	0.4	--	--
Chromium	--	--	29.3	--	--
Copper	--	--	44.4	--	--
Silver	--	--	0.4 U	--	--
Zinc	--	--	89.0	--	--
Mercury by Method SW7471A (Concentrations in mg/kg)					
Mercury	--	--	0.05 U	--	--
Herbicides by Method SW8151A (Concentrations in µg/kg)					
2,4,5-T	--	--	11 U	--	--
2,4,5-TP (Silvex)	--	--	11 U	--	--
2,4-D	--	--	44 U	--	--
2,4-DB	--	--	220 U	--	--
Dalapon	--	--	44 U	--	--
Dicamba	--	--	22 U	--	--
Dichloroprop	--	--	44 U	--	--
Dinoseb	--	--	22 R	--	--
MCPA	--	--	11,000 U	--	--

Notes:  
Data Qualifiers: U = Not detected at or above the Method Reporting Limit (the value shown). D = Sample concentration exceeded the calibration range of the testing instrument, and sample was diluted and retested.

**TABLE 4 (page 1 of 4)**

**Soil Results Summary - Petroleum and Carcinogenic PAHs Soil Sample Analyses**  
**King County Parcel 29244059005**  
**Part of BNSF ROW**  
**Renton and King County, Washington**

Sample Collection Information <sup>1</sup>					Analytical Results <sup>2</sup> - Total Petroleum Hydrocarbons and Carcinogenic Polycyclic Aromatic Hydrocarbons expressed as mg/Kg														
Sample Identity	Lab Report	Exploration Identity	Depth (feet)	Date Collected	Gasoline-Range Organics <sup>3</sup> data qualifier	Diesel-Range Organics <sup>4</sup> data qualifier	Lube Oil-Range Organics <sup>4</sup> data qualifier	Benzo(a)anthracene <sup>5</sup> data qualifier	Benzo(a)pyrene <sup>5</sup> data qualifier	Benzo(b)fluoranthene <sup>5</sup> data qualifier	Benzo(k)fluoranthene <sup>5</sup> data qualifier	Chrysene <sup>5</sup> data qualifier	Dibenzo(a,h)anthracene <sup>5</sup> data qualifier	Indeno(1,2,3-cd)pyrene <sup>5</sup> data qualifier	Total Toxic Equivalent Concentration <sup>6</sup>	Multiple of Cleanup Level <sup>7</sup>			
Transect B1																			
B1-A-1.0	NM59	B1-A	1.0	8/27/2008	--	180	360	4.1	5.2	4.1	2.9	5.5	0.51	2.5	6.7	67			
B1-A-3.5	NM59	B1-A	3.5	8/27/2008	--	32	54	0.31	0.36	0.25	0.16	0.33	0.066 U	0.18	0.46	5			
B1-A-5.0	NM59	B1-A	5.0	8/27/2008	--	5 U	10 U	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.047	0			
B1-A-10.0	NM59	B1-A	10.0	8/27/2008	--	--	--	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.047	0			
B1-A-15.0	NM59	B1-A	10.0	8/27/2008	--	--	--	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.050	0			
B1-A-20.0	NM59	B1-A	20.0	8/27/2008	--	8.7 U	120	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.047	0			
B1-A-24.0	NM59	B1-A	24.0	8/27/2008	--	23	380	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.050	0			
B1-B-1.0	NM59	B1-B	1.0	8/27/2008	--	4,400	7,300	46	56 D	40	27	56 D	3.3	14	70	696			
B1-B-3.0	NM59	B1-B	3.0	8/27/2008	--	16	30	0.53	0.73	0.42	0.34	0.68	0.080	0.37	0.91	9			
B1-B-5.0	NM59	B1-B	5.0	8/27/2008	--	--	--	0.20	0.29	0.22	0.16	0.27	0.060 U	0.12	0.37	4			
B1-C-5.0	NM59	B1-C	5.0	8/27/2008	--	14	47	0.62	0.88	0.64	0.49	0.85	0.068	0.33	1.1	11			
Transect Q1																			
Q1-A-1.0	NM43	Q1-A	1.0	8/27/2008	--	6,300	5,500	560	680	500	290	700	99	180	850	8499			
Q1-A-5.0	NM43	Q1-A	5.0	8/27/2008	--	--	--	0.15	0.65	0.35	0.58	0.30	0.092	0.28	0.80	8			
Q1-B-1.0	NM43	Q1-B	1.0	8/27/2008	--	1,200	1,200	580 D	760 D	430 D	410 D	760 D	90	160	935	9346			
Q1-B-5.0	NM43	Q1-B	5.0	8/27/2008	--	--	--	5.3	7.6	4.9	3.7	6.8	0.84	1.7	9.3	93			
Q1-C-2.5	NM43	Q1-C	2.5	8/27/2008	--	500	1,600	0.15	0.21	0.16	0.23	0.24	0.096 U	0.096 U	0.28	3			
Q1-C-5.0	NM43	Q1-C	5.0	8/27/2008	--	120	100	1.0	4.5	2.9	4.3	3.6	0.56	1.3	5.5	55			
Q1-D-3.5	NM43	Q1-D	3.5	8/27/2008	--	--	--	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.46	5			
Q1-D-5.0	NM43	Q1-D	5.0	8/27/2008	--	--	--	13	17	11	11	17	3.5	8.6	22	219			
Q1-D-9.0	NM43	Q1-D	9.0	8/27/2008	230	1,600	1,100	32	24	20	16	38	4.0	9.2	33	325			
Q1-D-15.0	NM43	Q1-D	15.0	8/27/2008	49 U	850	75	9.9	3.0	3.1	2.4	10	0.56	0.57	4.8	48			
Q1-D-23.0	NM43	Q1-D	23.0	8/27/2008	3.8 U	1,700	150	6.5 D	1.9	1.6	1.8	6.6 D	0.078	0.37	3.0	30			
Q1-D-30.0	NM43	Q1-D	30.0	8/27/2008	4.9 U	6.0 U	12 U	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.047	0			
Q1-Sed	NM43	Q1-D	Surface	8/30/2008	--	--	--	0.12	0.15	0.11	0.15	0.19	0.061 U	0.097	0.20	2			
MTCA Method A Cleanup Level <sup>8</sup>					-													0.1	



**TABLE 4 (page 2 of 4)**

**Soil Results Summary - Petroleum and Carcinogenic PAHs Soil Sample Analyses**  
**King County Parcel 29244059005**  
**Part of BNSF ROW**  
**Renton and King County, Washington**

Sample Collection Information <sup>1</sup>					Analytical Results <sup>2</sup> - Carcinogenic Polycyclic Aromatic Hydrocarbons expressed as mg/Kg												
Sample Identity	Lab Report	Exploration Identity	Depth (feet)	Date Collected	Gasoline-Range Organics <sup>3</sup>  data qualifier	Diesel-Range Organics <sup>4</sup>  data qualifier	Lube Oil-Range Organics <sup>4</sup>  data qualifier	Benzo(a)anthracene <sup>5</sup>  data qualifier	Benzo(a)pyrene <sup>5</sup>  data qualifier	Benzo(b)fluoranthene <sup>5</sup>  data qualifier	Benzo(k)fluoranthene <sup>5</sup>  data qualifier	Chrysene <sup>5</sup>  data qualifier	Dibenzo(a,h)anthracene <sup>5</sup>  data qualifier	Indeno(1,2,3-cd)pyrene <sup>5</sup>  data qualifier	Total Toxic Equivalent Concentration <sup>6</sup>	Multiple of Cleanup Level <sup>7</sup>	
Transect Q2																	
Q2-A-1.0	NM40	Q2-A	1.0	8/27/2008	--	220	430	3.0	4.0	3.8	2.7	4.1	0.32	1.1	5.1	51	
Q2-A-5.0	NM40	Q2-A	5.0	8/27/2008	--	6.8	22	0.22	0.28	0.24	0.26	0.33	0.066 U	0.089	0.37	4	
Q2-B-1.0	NM40	Q2-B	1.0	8/27/2008	--	33	100	1.0	1.3	1.1	1.1	1.3	0.094	0.37	1.7	17	
Q2-B-5.0	NM40	Q2-B	5.0	8/27/2008	--	--	--	1.7	2.3	2.5	1.7	2.2	0.16	0.74	3.0	30	
Q2-C-3.5	NM40	Q2-C	3.5	8/27/2008	--	41	140	4.3	7.5 D	7.3 D	4.9	5.9 D	0.47	2.0	9.5	95	
Q2-C-5.0	NM40	Q2-C	5.0	8/27/2008	--	5.7 U	11 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.048	0	
Q2-C-13.0	NM40	Q2-C	13.0	8/27/2008	300	3,000	1,400	42	36	31	29	28	2.2	6.1	47	473	
Q2-C-25.0	NM40	Q2-C	25.0	8/27/2008	--	--	--	0.44	0.33	0.42	0.32	0.44	0.062 U	0.066	0.46	5	
Q2-D-3.5	NM40	Q2-D	3.5	8/27/2008	--	1,300	3,800	41	73	80	14	57	13	38	90	922	
Q2-D-5.0	NM40	Q2-D	5.0	8/27/2008	--	660	1,600	130 D	230 D	260 D	160 D	200 D	20	92 D	298	2982	
Q2-D-10.0	NM40	Q2-D	10.0	8/27/2008	--	660	170	8.9	4.5	6.3	3.7	7.2	0.48	1.2	6.6	66	
Q2-D-13.0	NM40	Q2-D	13.0	8/27/2008	220	560	260	1.1	1.1	1.3	0.9	1.2	0.13	0.39	1.5	15	
Q2-D-18.0	NM40	Q2-D	18.0	8/27/2008	390	11,000	3,600	35 D	26 D	25 D	14	26	2.2	6.7	35	346	
Q2-D-35.0	NM40	Q2-D	35.0	8/27/2008	630	5.6 U	11 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.048	0	
Transect Q3																	
Q3-A-1.0	NM42	Q3-A	1.0	8/27/2008	--	4,200	2,700	360	250	280	260	440	16	60	352	3520	
Q3-A-5.0	NM42	Q3-A	5.0	8/27/2008	--	240	250	18	23	12	14	12	1.4 U	2.4	28	278	
Non-transects																	
Q4-2.5	NX66	Q4	2.5	10/28/2008	--	1,300	2,300	19	17	14	12	70	42	4.9	27	269	
Q4-15.0	NX66	Q4	15.0	10/28/2008	2,800	5,800	2,500	110	81	68	57	71	12 U	25	108	1083	
Q4-27.0	NX66	Q4	27.0	10/28/2008	--	6.2 U	12 U	0.059 U	0.059 U	0.059 U	0.059 U	0.059 U	0.059 U	0.059 U	0.045	0	
Q4-31.0	NX66	Q4	31.0	10/28/2008	21	5.8 U	12 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.045	0	
Q5-14.0	NX66	Q5	14.0	10/28/2008	8.1 U	6.7 U	20	0.056 U	0.056 U	0.056 U	0.056 U	0.056 U	0.056 U	0.056 U	0.042	0	
Q5-18.0	NX66	Q5	18.0	10/28/2008	3,900	220	54	0.95	0.60	0.57	0.38	0.89	0.067	0.17	0.82	8	
Q5-25.5	NX66	Q5	25.5	10/28/2008	--	5.8 U	12 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U	0.044	0	
Q6-4.0	NX66	Q6	4.0	10/28/2008	--	9,200	13,000	1,100	1,400	960	660	1,500	190	730	1779	17790	
MTCA Method A Cleanup Level <sup>8</sup>					-										0.1		

**TABLE 4 (page 3 of 4)**

**Soil Results Summary - Petroleum and Carcinogenic PAHs Soil Sample Analyses**  
**King County Parcel 29244059005**  
**Part of BNSF ROW**  
**Renton and King County, Washington**

[illegible]

**TABLE 4 (page 4 of 4)**

**Soil Results Summary - Petroleum and Carcinogenic PAHs Soil Sample Analyses**  
**King County Parcel 29244059005**  
**Part of BNSF ROW**  
**Renton and King County, Washington**

Sample Collection Information <sup>1</sup>					Analytical Results <sup>2</sup> - Carcinogenic Polycyclic Aromatic Hydrocarbons expressed as mg/Kg													
Sample Identity	Lab Report	Exploration Identity	Depth (feet)	Date Collected	Gasoline-Range Organics <sup>3</sup>  data qualifier	Diesel-Range Organics <sup>4</sup>  data qualifier	Lube Oil-Range Organics <sup>4</sup>  data qualifier	Benzo(a)anthracene <sup>5</sup>  data qualifier	Benzo(a)pyrene <sup>5</sup>  data qualifier	Benzo(b)fluoranthene <sup>5</sup>  data qualifier	Benzo(k)fluoranthene <sup>5</sup>  data qualifier	Chrysene <sup>5</sup>  data qualifier	Dibenzo(a,h)anthracene <sup>5</sup>  data qualifier	Indeno(1,2,3-cd)pyrene <sup>5</sup>  data qualifier	Total Toxic Equivalent Concentration <sup>6</sup>  data qualifier	Multiple of Cleanup Level <sup>7</sup>		
Q13-15.0	NX79	Q13	15.0	10/28/2008	--	10 U	80	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.049	0	
Q13-22.0	NX79	Q13	22.0	10/28/2008	6.5	5.6 U	11 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.049	0	
Q14-2.5	NX79	Q14	2.5	10/29/2008	--	6.1	18	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.045	0	
Q14-6.5	NX79	Q14	6.5	10/29/2008	--	310	470	24	29	20	13	30	5.4	13	37	368	368	
Q14-15.5	NX79	Q14	15.5	10/29/2008	7.7 U	9.0 U	78	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.049	0	
Q14-22.0	NX79	Q14	22.0	10/29/2008	5.1 U	6.6 U	20	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.048	0	
Q15-4.0	NX79	Q15	4.0	10/30/2008	--	860	1,600	31	38	25	21	43	7.7	17	49	486	486	
Q15-16.0	NX79	Q15	16.0	10/30/2008	3.0 U	5.5 U	11 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.045	0	
Q15-20.0	NX79	Q15	20.0	10/30/2008	--	6.8 U	37	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.047	0	
Q16-3.5	NX79	Q16	3.5	10/29/2008	--	--	--	0.11	0.14	0.16	0.12	0.20	0.061 U	0.086	0.19	2	2	
Q16-20.0	NX79	Q16	20.0	10/29/2008	4.1 U	6.3 U	13 U	0.061 U	0.22	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.061 U	0.24	2	
Q16-28.0	NX79	Q16	28.0	10/29/2008	--	--	--	0.052 U	0.052 U	0.052 U	0.052 U	0.052 U	0.052 U	0.052 U	0.052 U	0.039	0	
Q17-11.0	NX79	Q17	11.0	10/28/2008	4.4 U	5.9 U	12 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.045	0	
Q17-18.0	NX79	Q17	18.0	10/28/2008	--	6.7	12 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.045	0	
Q17-25.0	NX79	Q17	25.0	10/28/2008	--	6.0 U	12 U	0.059 U	0.059 U	0.059 U	0.059 U	0.059 U	0.059 U	0.059 U	0.059 U	0.045	0	
QRM-1-1.0	NY02	QRM-1	1.0	11/1/2008	--	67	170	0.71	0.96	0.72	0.54	1.1	0.12	0.45	1.2	12	12	
QRM-1-2.0	NY02	QRM-1	2.0	11/1/2008	--	50	93	0.30	0.46	0.69	0.42	0.64	0.098	0.26	0.64	6	6	
QRM-2-1.0	NY02	QRM-2	1.0	11/1/2008	--	21	84	0.10	0.13	0.13	0.082	0.17	0.056 U	0.10	0.18	2	2	
QRM-2-2.0	NY02	QRM-2	2.0	11/1/2008	--	8.4	21	0.11	0.20	0.27	0.15	0.30	0.061 U	0.11	0.27	3	3	
QRM-3-1.0	NY02	QRM-3	1.0	11/1/2008	--	6.0	31	0.061 U	0.083	0.11	0.079	0.099	0.061 U	0.061 U	0.11	1	1	
QRM-3-2.0	NY02	QRM-3	2.0	11/1/2008	--	6.6	27	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.041	0	0	
QRM-4-1.0	NY02	QRM-4	1.0	11/1/2008	--	5.8	12	0.31	0.33	0.78	0.31	0.49	0.084	0.26	0.51	5	5	
QRM-4-2.0	NY02	QRM-4	2.0	11/1/2008	--	5.4 U	16	0.055 U	0.055 U	0.055 U	0.055 U	0.055 U	0.055 U	0.055 U	0.042	0	0	
QRM-5-1.0	NY02	QRM-5	1.0	11/1/2008	--	9.3	19	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.062 U	0.047	0	0	
QRM-5-2.0	NY02	QRM-5	2.0	11/1/2008	--	5.4	13	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.045	0	0	
MTCA Method A Cleanup Level <sup>8</sup>					-												0.1	

<b>Notes:</b>	
1	Additional sample collection information is presented in the exploration logs in Appendix A.
2	Analyses performed by Analytical Resources, Inc. of Seattle, Washington. Final laboratory reports are included in Appendix B on CDR.
3	By Ecology Method NWTPH-G.
4	By Ecology Method NWTPH-Dx.
5	By EPA Method 8270C.
6	Calculated in accordance with the methods described in WAC 173-340-708.
7	Multiple by which the Total Toxic Equivalent Concentration exceeds the cleanup level.
8	MTCA Method A Cleanup Levels for Unrestricted Land Use. Values that exceed cleanup levels are shaded.

TABLE 5  
Ground Water Testing - All Analyses  
King County Parcel 29244059005  
Part of BNSF ROW  
Renton and King County, Washington

Sample ID	Q1-D-W	Q2-D-W	WD-1 (Q2-D-W)	Q4-W	Q9-W	Q12-W	WD-2 (Q12-W)	Q14-W	Q17-W
Sample Date and Time	8/27/2008 14:40	8/27/2008 16:35	8/27/2008 12:03	11/3/2008 14:50	11/3/2008 13:25	11/3/2008 12:10	11/3/2008 12:00	11/3/2008 12:50	11/3/2008 14:15
Fuels by Method NWTPH-Dx (Concentrations in mg/L)									
Diesel Range Hydrocarbons	1.1	--	--	7.7	85	0.25 U	0.25 U	0.25 U	0.25 UJ
Motor Oil	0.5 U	--	--	1.8	21	0.5 U	0.5 U	0.5 U	0.5 UJ
Gasoline by Method NWTPHG (Concentrations in mg/L)									
Gasoline Range Hydrocarbons	0.23	6.5	6.6	30	82	0.1	0.1 U	0.15	0.1 U
Metals by EPA Method E200.8 (Concentrations in µg/l)									
Arsenic	9.2	2.2	2.3	2.9	1,690	2.4	2.4	2.2	2.8
Lead	1 U	1 U	1 U	1 U	60	1 U	1 U	1 U	1 U
BTEX by Method SW8021B Mod (Concentrations in µg/L)									
Benzene	0.25 U	85	88	92	1,600	0.25 U	0.25 U	0.25 U	0.25 U
Ethylbenzene	1.5	190	200	380	800	0.25 U	0.25 U	0.25 U	0.25 U
m,p-Xylene	0.5 U	130	140	320	980	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	0.25 U	120	120	200	480	0.25 U	0.25 U	0.25 U	0.25 U
Toluene	0.25 U	7.2	7.5	57	1,300	0.25 U	0.25 U	0.25 U	0.25 U
SVOA by Method SW8270D (Concentrations in µg/L)									
1,2,4-Trichlorobenzene	1 U	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	1 U	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	1 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	1 U	--	--	--	--	--	--	--	--
1-Methylnaphthalene	30	--	--	710 J	10,000 J	1.3 J	1.4 J	1 UJ	1 UJ
2,2'-Oxybis(1-Chloropropane)	1 U	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	5 U	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	5 U	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	5 U	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	1 U	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	10 U	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	5 U	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	5 U	--	--	--	--	--	--	--	--
2-Chloronaphthalene	1 U	--	--	--	--	--	--	--	--
2-Chlorophenol	1 U	--	--	--	--	--	--	--	--
2-Methylnaphthalene	42	--	--	1,100 J	17,000 J	1.7 J	2.2 J	1 UJ	1 UJ
2-Methylphenol	1 U	--	--	--	--	--	--	--	--
2-Nitroaniline	5 U	--	--	--	--	--	--	--	--
2-Nitrophenol	5 U	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	5 U	--	--	--	--	--	--	--	--
3-Nitroaniline	5 U	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	10 U	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	1 U	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	5 U	--	--	--	--	--	--	--	--
4-Chloroaniline	5 U	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	1 U	--	--	--	--	--	--	--	--
4-Methylphenol	1 U	--	--	--	--	--	--	--	--
4-Nitroaniline	5 U	--	--	--	--	--	--	--	--
4-Nitrophenol	5 U	--	--	--	--	--	--	--	--
Acenaphthene	38	--	--	620 J	10,000 J	3.7 J	1.5 J	1 UJ	1 UJ
Acenaphthylene	1 U	--	--	20 UJ	1,000 J	1 UJ	1 UJ	1 UJ	1 UJ
Anthracene	4	--	--	94 J	3,600 J	1 UJ	1 UJ	1 UJ	1 UJ
Benzo(a)anthracene	1 U	--	--	94 J	3,100 J	1 UJ	1 UJ	1 UJ	1 UJ
Benzo(a)pyrene	1 U	--	--	65 J	2,000 J	1 UJ	1 UJ	1 UJ	1 UJ
Benzo(b)fluoranthene	1 U	--	--	60 J	1,900 J	1 UJ	1 UJ	1 UJ	1 UJ
Benzo(g,h,i)perylene	1 U	--	--	28 J	800 J	1 UJ	1 UJ	1 UJ	1 UJ
Benzo(k)fluoranthene	1 U	--	--	36 J	1,400 J	1 UJ	1 UJ	1 UJ	1 UJ
Benzoic Acid	10 U	--	--	--	--	--	--	--	--
Benzyl Alcohol	5 U	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy) Methane	1 U	--	--	--	--	--	--	--	--
Bis-(2-Chloroethyl) Ether	1 U	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	1 U	--	--	--	--	--	--	--	--
Butylbenzylphthalate	1 U	--	--	--	--	--	--	--	--
Carbazole	1.2	--	--	--	--	--	--	--	--
Chrysene	1 U	--	--	60 J	2,200 J	1 UJ	1.2 J	1 UJ	1 UJ
Dibenz(a,h)anthracene	1 U	--	--	20 UJ	200 J	1 UJ	1 UJ	1 UJ	1 UJ
Dibenzofuran	5.2	--	--	260 J	3,800 J	1 UJ	1 UJ	1 UJ	1 UJ
Diethylphthalate	1.3	--	--	--	--	--	--	--	--
Dimethylphthalate	1 U	--	--	--	--	--	--	--	--
Di-n-Butylphthalate	1 U	--	--	--	--	--	--	--	--
Di-n-Octyl phthalate	1 U	--	--	--	--	--	--	--	--
Fluoranthene	9.1	--	--	300 J	10,000 J	1 UJ	1.5 J	1 UJ	1 UJ
Fluorene	20	--	--	330 J	7,300 J	1.1 J	1 UJ	1 UJ	1 UJ
Hexachlorobenzene	1 U	--	--	--	--	--	--	--	--
Hexachlorobutadiene	1 U	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	5 U	--	--	--	--	--	--	--	--
Hexachloroethane	1 U	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	1 U	--	--	25 J	760 J	1 UJ	1 UJ	1 UJ	1 UJ
Isophorone	1 U	--	--	--	--	--	--	--	--
Naphthalene	20	--	--	5,300 J	45,000 J	7.8 J	12 J	2.7 J	1.1 J
Nitrobenzene	1 U	--	--	--	--	--	--	--	--
N-Nitroso-Di-N-Propylamine	5 U	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	1 U	--	--	--	--	--	--	--	--
Pentachlorophenol	5 U	--	--	--	--	--	--	--	--
Phenanthrene	51	--	--	840 J	23,000 J	1.5 J	2.5 J	1.3 J	1 UJ
Phenol	1 U	--	--	--	--	--	--	--	--
Pyrene	7.3	--	--	270 J	11,000 J	1 UJ	2.2 J	1.4 J	1 UJ

Notes:  
Data Qualifiers: U = Not detected at or above the Method Reporting Limit (the value shown). D = Sample concentration exceeded the calibration range of the instrument, and sample was diluted and retested. J = Contaminant was detected at a concentration less than the Method Reporting Limit, and is an estimated value.

**TABLE 6**

**Ground Water Results Summary - Petroleum and Carcinogenic PAHs Soil Sample Analyses**

**King County Parcel 29244059005**

**Part of BNSF ROW**

**Renton and King County, Washington**

Sample Collection Information <sup>1</sup>					Analytical Results <sup>2</sup> - Carcinogenic Polycyclic Aromatic Hydrocarbons expressed as µg/L											
Sample Identity	Lab Report	Exploration Identity	Depth (feet)	Date Collected	Gasoline-Range Organics <sup>3</sup> data qualifier	Diesel-Range Organics <sup>4</sup> data qualifier	Lube Oil-Range Organics <sup>4</sup> data qualifier	Benzo(a)anthracene <sup>5</sup> data qualifier	Benzo(a)pyrene <sup>5</sup> data qualifier	Benzo(b)fluoranthene <sup>5</sup> data qualifier	Benzo(k)fluoranthene <sup>5</sup> data qualifier	Chrysene <sup>5</sup> data qualifier	Dibenzo(a,h)anthracene <sup>5</sup> data qualifier	Indeno(1,2,3-cd)pyrene <sup>5</sup> data qualifier	Total Toxic Equivalent Concentration <sup>6</sup>	Multiple of Cleanup Level <sup>7</sup>
Q1-D-W	NM43	Q1-D	--	8/27/2008	230	1,100	500 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.76	8
Q4-W	NY02	Q04	--	11/3/2008	30,000	7,700	1,800	94	65	60	36	60	20	25	89.1	891
Q9-W	NY02	Q09	--	11/3/2008	82,000	85,000	21,000	3,100	2,000	1,900	1,400	2,200	200	760	2,758	27580
Q12-W	NY02	Q12	--	11/3/2008	100 U	250 U	500 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.76	8
Q14-W	NY02	Q14	--	11/3/2008	150	250 U	500 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.76	8
MTCA Method A Cleanup Level <sup>8</sup>					-										0.1	

**Notes:**

<sup>1</sup> Additional sample collection information is presented in the exploration logs in Appendix A.

<sup>2</sup> Analyses performed by Analytical Resources, Inc. of Seattle, Washington. Final laboratory reports are included in Appendix B on CDR.

<sup>3</sup> By Ecology Method NWTPH-G.

<sup>4</sup> By Ecology Method NWTPH-Dx.

<sup>5</sup> By EPA Method 8270C.

<sup>6</sup> Calculated in accordance with the methods described in WAC 173-340-708.

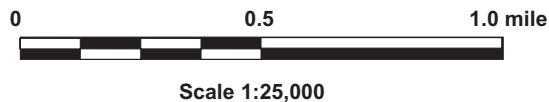
<sup>7</sup> Multiple by which the benzo (a) pyrene toxicity equivalency exceeds the cleanup level.

<sup>8</sup> MTCA Method A Cleanup Levels. Values that exceed cleanup levels are shaded.

Example Shading

Data Qualifiers: U = Not detected at or above the Method Reporting Limit (the value shown). D = Sample concentration exceeded the calibration range of the testing instrument, and sample was diluted and retested.





References:  
USGS 7.5 minute Quadrangle: Bellevue South, Washington, 1983

Upper Left Inset:  
Google Earth, 2007 photograph,  
Vertical exaggeration x2  
Oblique view from south of the site.

Jurisdiction boundaries based on documentation from the  
King County Geographic Information System (KCGIS)

**Figure 1**  
**Vicinity Map**  
**King County Parcel 2924059005**  
**Part of BNSF ROW**  
**Renton and King County,**  
**Washington**

Pinnacle GeoSciences



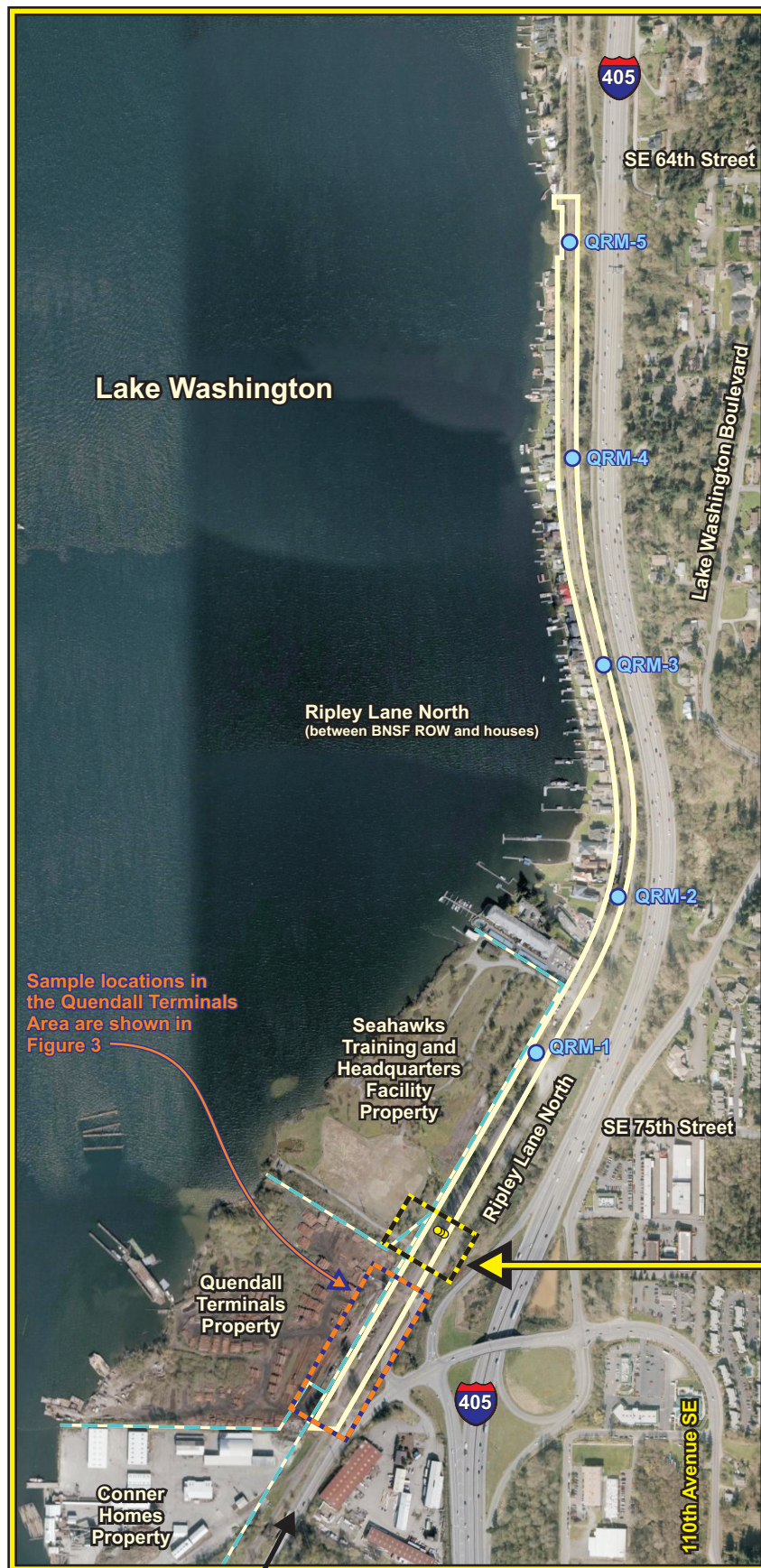


Photo Source: Google Earth, 2005

## Explanation

QRM-1

Soil sample locations  
(Sampled November 1, 2008)

B1-A

Transect soil sample locations  
(Sampled August 27, 2008)



**Figure 2**

Sample Locations North of  
Quendall Terminals  
King County Parcel 2924059005  
Part of BNSF ROW  
Renton and King County,  
Washington

Pinnacle GeoSciences



0 750 1,500 feet

Approximate Scale: 1-inch = 750 feet

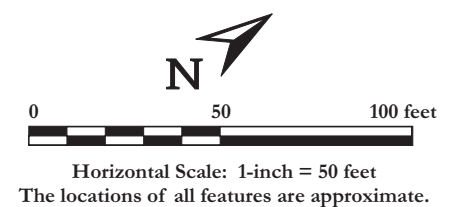
The approximate site location is shown in yellow outline.  
The locations of all features are approximate.





## Legend

- Q1-A Transect sampling location and designation
- Q1-Sed Sediment sampling location
- Q5 Phase II soil sampling location and designation
- ⊙ Q14 Phase II soil and ground water sampling location and designation
- HC-5 Exploration advanced for Quendall Terminals studies by others (shown in the 1961 photograph only)
- Granular, black tar-like substance
- Limit of DNAPL as estimated by Aspect Consulting
- BNSF ROW property line

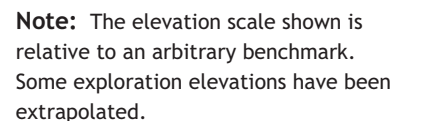
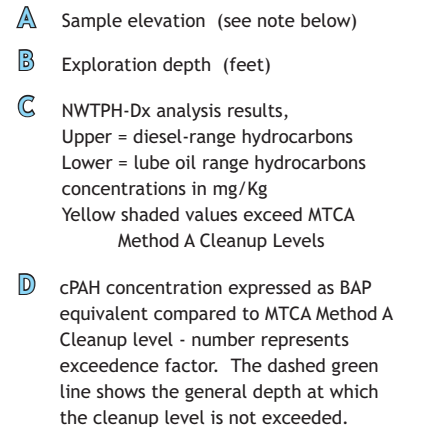
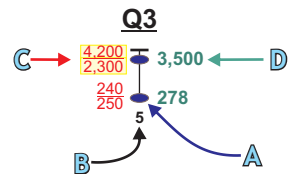
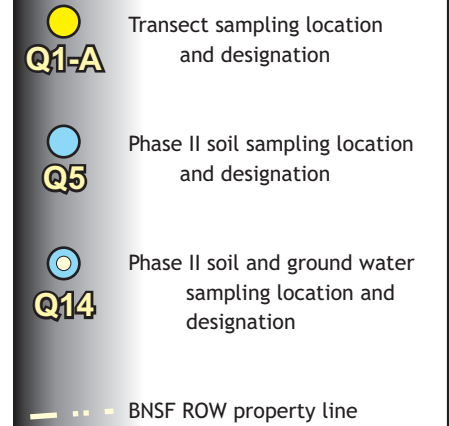
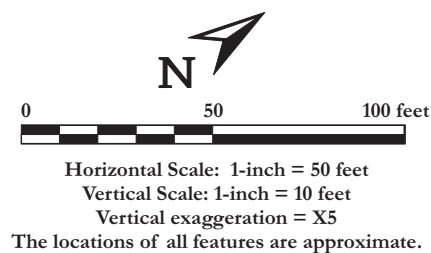
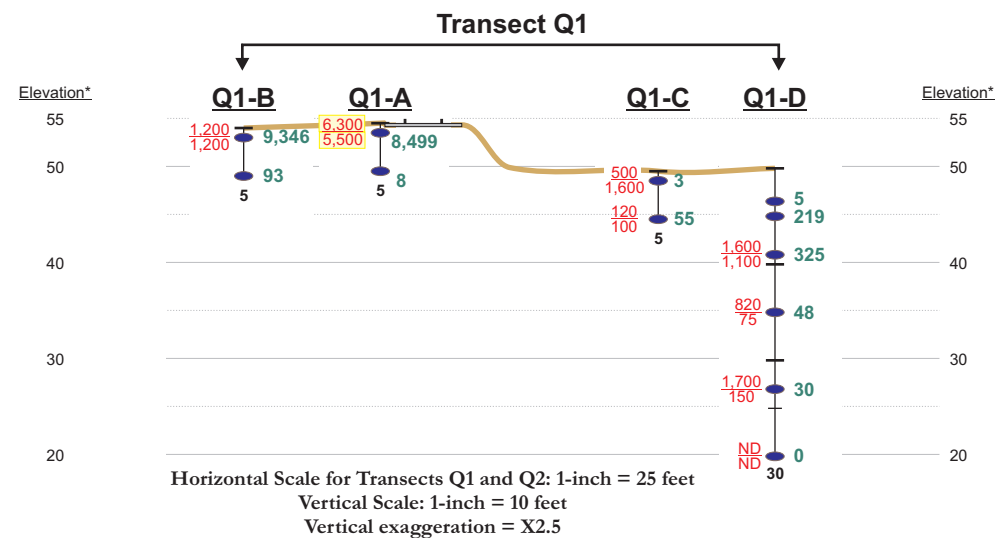
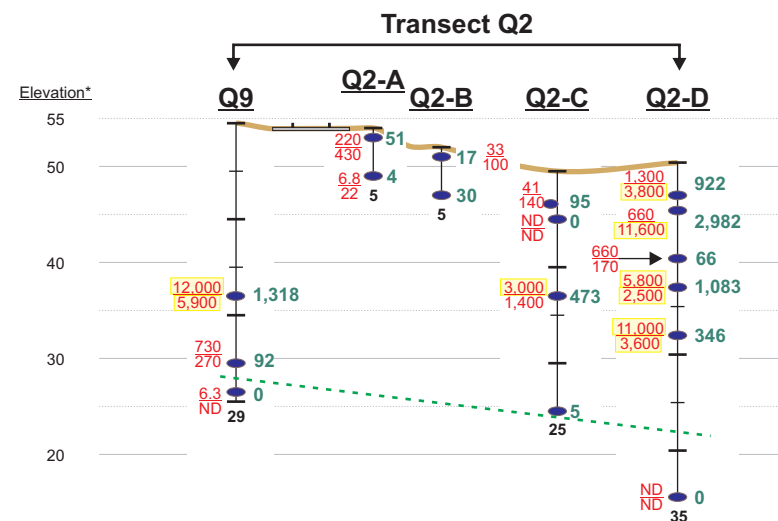
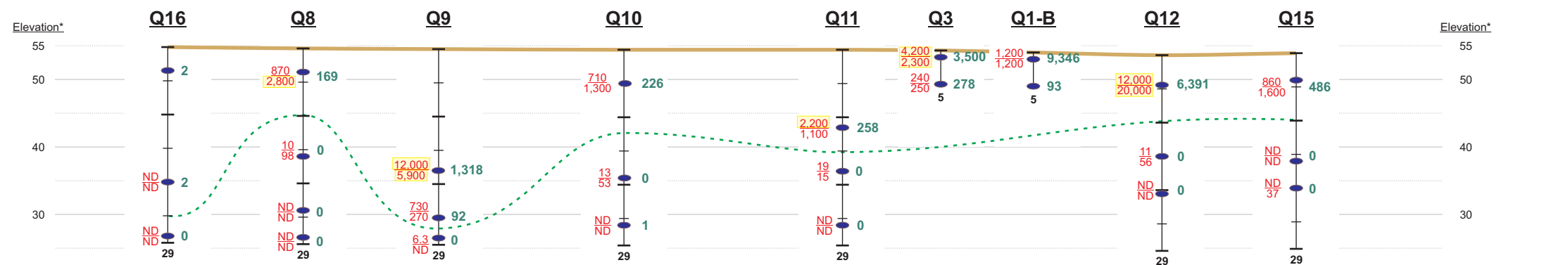
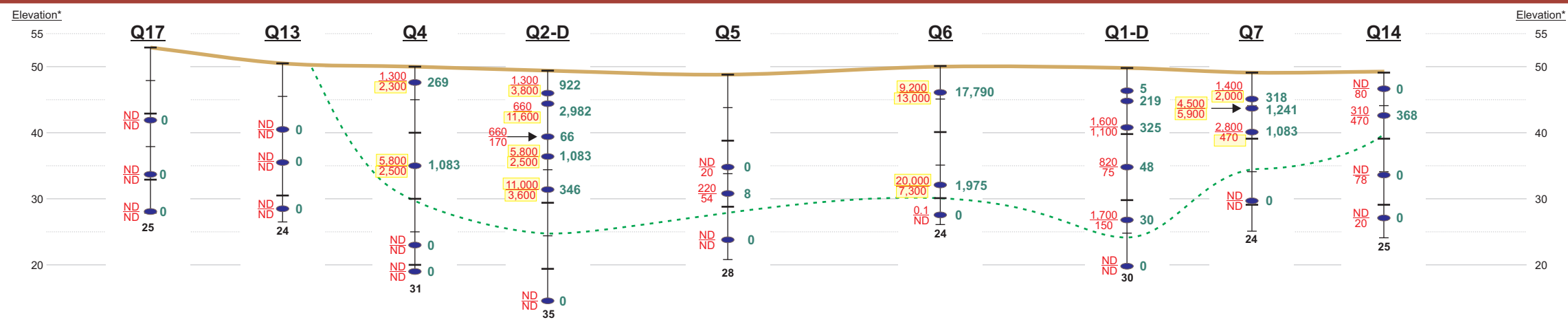



Recent Photo: Google Earth, May, 2005  
1961 Photo: By DNR, provided by Aspect Consulting

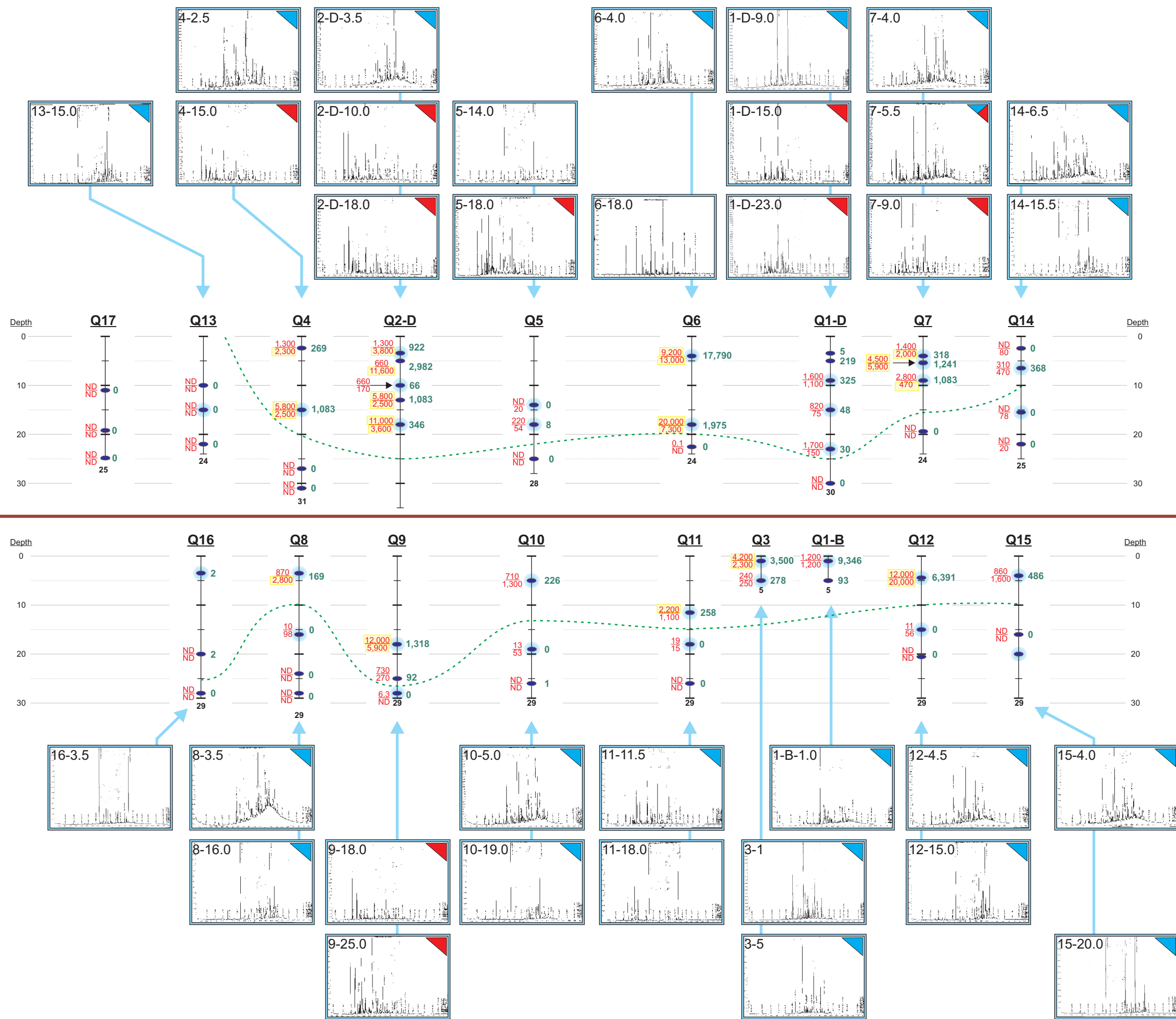


**Figure 3**  
Exploration Locations  
Quendall Terminals Segment  
King County Parcel 2924059005  
Part of BNSF ROW  
Renton and King County,  
Washington  
Pinnacle GeoSciences





**Figure 4**  
**Exploration Locations and  
Analytical Overview**  
**King County Parcel 2924059005**  
**Part of BNSF ROW**  
**Renton and King County,**  
**Washington**  
**Pinnacle GeoSciences** 

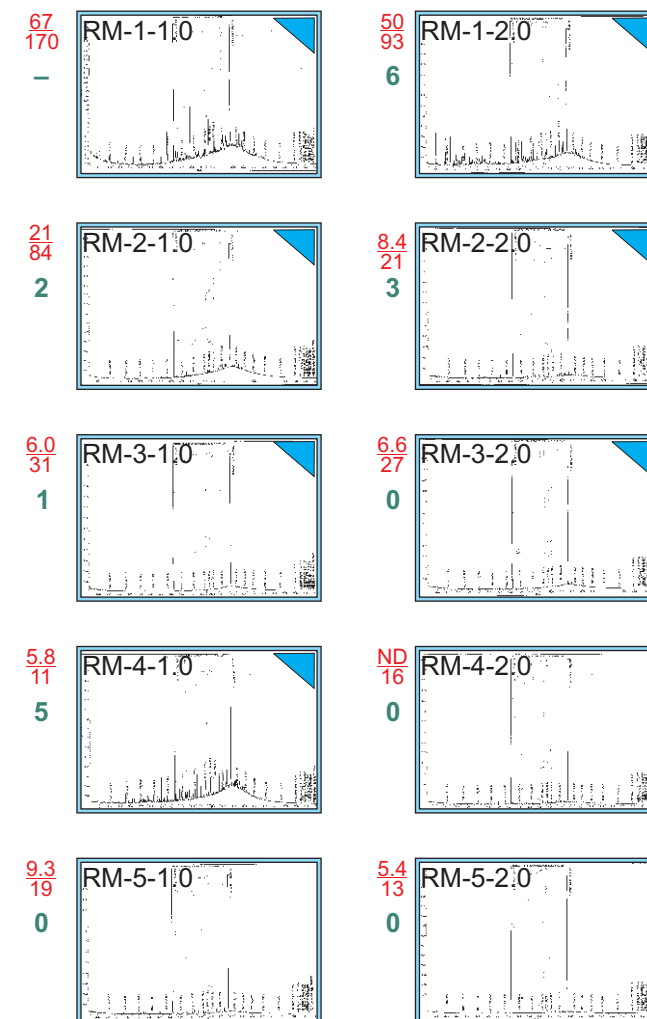


## Legend

- Heavy- and mid-range hydrocarbons predominate
- Light-range hydrocarbons predominate
- Mixture of two ranges evident
- Chromatogram of this sample is shown

Refer to the text for a discussion of this figure.

## Northern Remote Locations



**Figure 5**  
NWTPH-Dx Chromatography  
Quendall Terminals Segment  
King County Parcel 2924059005  
Part of BNSF ROW  
Renton and King County,  
Washington

Pinnacle GeoSciences



# Explanation

▲ BNSF Distant North of Quendall Terminal

◆ BNSF ROW at Quendall Property

★ BNSF ROW at Baxter Property

● BNSF ROW North of Quendall Property

① 1,000 feet north of the Quendall property

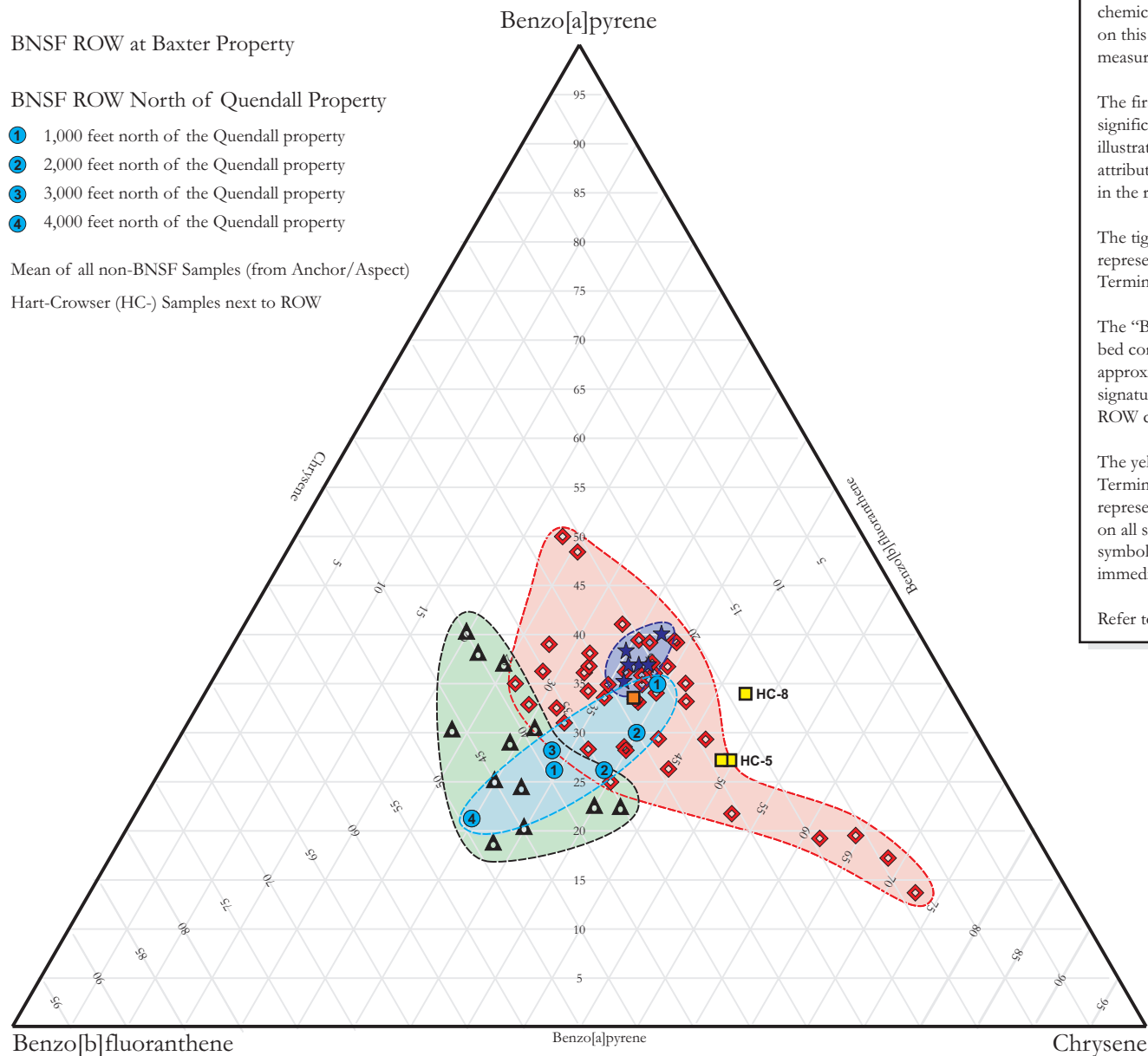
② 2,000 feet north of the Quendall property

③ 3,000 feet north of the Quendall property

④ 4,000 feet north of the Quendall property

■ Mean of all non-BNSF Samples (from Anchor/Aspect)

■ Hart-Crowser (HC-) Samples next to ROW



## Notes:

This diagram illustrates the relative proportion of three target cPAH compounds. It's a technique that is effective in identifying possible relationships between contaminant sources. The technique focuses on chemical composition instead of concentration. The samples represented on this graph are a subset of all samples analyzed. Only samples that had measurable concentrations of the all three target cPAHs are graphed.

The first data set of samples collected on the BNSF ROW at locations significantly distant from the Quendall Terminals property is intended to illustrate the characteristics of "background" cPAHs that might be attributed to diesel exhaust and/or railroad sleeper (ties) creosote residues in the rail bed soils.

The tightly grouped "BNSF ROW at Baxter Property" samples likely represents residual refined tar that fell off of bulk cars as they left Quendall Terminals. The presence of this residues was visually evident in the soil.

The "BNSF ROW at North of Quendall Property" samples represent rail bed conditions at locations successively more distant to the north. At approximately 4,000 feet of the Quendall Terminals the rail bed cPAHs signature essentially matches the general characteristics of "background" ROW conditions.

The yellow and orange symbols represent data obtained from the Quendall Terminals property to the west of the BNSF ROW. The orange symbol represents the mean values of for the three cPAHs considered here based on all soil analysis data collected at the Quendall Terminals site. The yellow symbols represent analysis of samples collected at two locations immediately adjacent to the BNSF ROW by Hart-Crowser in 1995.

Refer to the text for additional discussion of this figure.

**Figure 6**  
**Trilinear Chart**  
**Selected cPAH Evaluation**  
**Quendall Terminals Segment**  
**King County Parcel 2924059005**  
**Part of BNSF ROW**  
**Renton and King County,**  
**Washington**

## **APPENDICES**

**The following Appendix begins in the next page**

Appendix A – Field Procedures and Exploration Logs

**The following appendices are included on the attached CD-R**

Appendix B – Analytical Reports (on CD-R)

Appendix C – Analytical Validation Report (on CD-R)

Appendix D – Quality Assurance Project Plan (on CD-R)

## APPENDIX A – FIELD PROCEDURES

### WORK PLAN AND QUALITY ASSURANCE PROJECT PLAN

The soil and ground water explorations were performed generally as described in our *Work Plan; BNSF Right-of-Way at Quendall Terminals* dated October 7, 2008. Our field procedures were generally in accordance with our *Quality Assurance Project Plan* dated October 7, 2008. The laboratory data quality evaluation was also performed in accordance with the *Quality Assurance Project Plan*, and is presented in Appendix D.

### DRILLING AND SOIL SAMPLES

Subsurface conditions beneath the site were explored by performing 26 explorations using direct-push technology, and obtaining surface or near-surface samples from six locations using hand equipment. The direct-push explorations were completed using truck-mounted and track-mounted GeoProbe drilling equipment owned and operated by Cascade Drilling, Inc. Surface and near-surface samples were obtained using hand-digging equipment. A representative of Pinnacle GeoSciences selected the exploration and sampling locations, examined and classified the soils encountered, and prepared a detailed log of each boring. Soils encountered in the explorations were classified visually in general accordance with ASTM D2488-90, which is described in Figures A-1 and A-2.

#### Direct Push Explorations

Soil samples from the explorations were obtained on a continuous basis, or as allowed by the soil conditions and the drilling technology. The explorations were performed with GeoProbe 7730DT track-mounted and GeoProbe 7700 truck-mounted direct-push rigs. The soil samples were obtained using a Dual Tube sampler (4 feet in length by 2-inch inside diameter) in a 2.75-inch cased exploration if soil and ground water conditions allow or a MacroCore sampler (4 feet in length by 1.5-inch inside diameter) in an uncased exploration. The Dual Tube or MacroCore samplers were lined with clear PVC liners.

At each sample interval, the sampler was driven the length of the sampler using a pneumatic hammer. The liner was extruded from the sampler after it was removed from the exploration, and then split open to allow access for physical examination, field screening, and laboratory sampling.

#### Surface and Near-surface Sampling

At each surface or near-surface sampling location, explorations were excavated to sample depth with a post hole digger and the sample obtained using disposable plastic sampling equipment.

#### Soil Sample Logging and Handling

Each sample was physically examined for soil classification and visual signs of contamination, and portions of the sample were field screened. Disturbance of the sample was minimized. Exploration logs are presented in Figures A-3 through A-30.

Based on the physical examination and field screening, a field decision was made whether to perform laboratory testing on the sample. Each sample not intended for laboratory testing was either discarded or transferred from the sampler to an unused plastic bag for later examination.

Each sample intended for possible laboratory testing was processed as soon as the physical examination and field screening was completed. The portion of the sample selected for testing was processed in the following manner. Soil was placed in two or more 4-ounce soil jars for testing of non- or semi-volatile organics and metals. Where volatiles testing was planned, three 5-gram portions (approximate weight) were obtained using a syringe sampler and placed into three pre-weighed VOA vials, one preserved with methanol and two with magnetic stir bars, as required by EPA Method 5035. All VOA vials and 4-ounce jars were labeled with information including the job number, the sample number and the sampling date, and placed in refrigeration. Samples were delivered to the laboratory within 48 hours for preservation, as required by EPA Method 5035.

## **WELL INSTALLATION AND WATER SAMPLES**

Ground water grab samples were obtained from explorations Q1-D and Q2-D by driving a 3-foot stainless steel well screen with a retractable shroud to the target depth, and retracting the shroud to expose the screen. A peristaltic pump was then used to purge water from the exploration until turbidity was visually confirmed to decrease significantly, and samples were then dispensed into the appropriate sample containers.

Permanent ground water monitoring wells were installed in explorations Q4, Q9, Q12, Q14 and Q17. Each well consisted of a 1-inch PVC riser pipe and a 5-foot section of 1-inch PVC 10-slot well screen. Each well screen was pre-wrapped in a factory constructed 2.5-inch diameter 10-20 sand pack with an outer wrapping of stainless steel mesh. The specific construction of each well is shown in the well log for that exploration.

Ground water samples were obtained from the wells using a peristaltic pump. New, unused tubing was used to obtain each sample. Each well was purged, and temperature, pH and conductivity were measured in the purge water until these parameters had stabilized to within preestablished limits. After the measured parameters had stabilized, the ground water was dispensed into the appropriate sample containers. The portion of each sample intended for testing of metals was field-filtered through a new, unused 0.45 micron filter.

## **DECONTAMINATION PROCEDURES**

The drilling equipment was cleaned with a steam cleaner before each exploration.

All sampling equipment coming in direct contact with the soil samples or ground water new, unused disposable equipment which was discarded after each sample was obtained. Decontamination water was placed in a labeled 55-gallon drum.

## FIELD SCREENING PROCEDURES

A Pinnacle GeoSciences, Inc. representative field screened all soil samples. Field screening results were used as a general guideline to delineate areas of possible petroleum-related contamination. In addition, screening results were used to aid in the selection of soil samples for potential chemical analysis. The screening methods used included the following: visual screening, headspace vapor screening and water sheen screening.

Visual screening consists of inspecting the soil for stains indicative of petroleum-related contamination. Visual screening is generally more effective when contamination is related to heavy petroleum hydrocarbons such as motor oil, or when hydrocarbons concentrations are high. Headspace and water sheen screening is a more sensitive method that has been effective in detecting contamination at concentrations less than regulatory cleanup guidelines. However, field screening results are site-specific. The effectiveness of field screening results will vary with ambient temperature; and soil moisture content, organic content, soil type, and type and age of contaminant. The presence or absence of a sheen does not necessarily indicate the presence or absence of petroleum hydrocarbons.

Head space vapor screening involves placing about one to two cups of soil into a plastic bag. Air is captured in the bag, and it is sealed. The bag is shaken to volatilize contaminants in the soil. The probe of an instrument designed to measure vapors, in this case a RAE Instruments MiniRAE Plus Classic photoionization detector, is then inserted into the bag and the vapor concentration is measured. Headspace vapor screening generally is only effective in detecting volatile hydrocarbons or other volatile organic compounds.

Water sheen screening involves placing about one tablespoon of soil in water and observing the water surface for signs of a petroleum sheen. Sheen screening may detect both volatile and non-volatile petroleum hydrocarbons, although it is more effective at detecting non-volatile contaminants. Sheens observed are classified as follows:

NS (no sheen)

No visible sheen on the water surface.

SS (slight sheen)

Light, colorless, dull sheen; spread is irregular, not rapid. Natural organic oils or iron bacteria in the soil may produce a slight sheen.

MS (moderate sheen)

Pronounced sheen over limited area; probably has some color/iridescence; spread is irregular, may be rapid; sheen does not spread over entire water surface.

HS (heavy sheen)

Heavy sheen with pronounced color/iridescence; spread is rapid; the entire water surface is covered with sheen.

MAJOR DIVISIONS			GRAPHIC SYMBOL	GROUP SYMBOL	GROUP NAME
COARSE-GRAINED SOIL (More than 50% retained on #200 sieve)	GRAVEL  (More than or equal to 50% of coarse fraction retained on #4 sieve)	CLEAN GRAVEL (Little or no fines)		GW	Well-graded GRAVEL; gravel/sand mixture
				GP	Poorly-graded GRAVEL; gravel/sand mixture
		GRAVEL WITH FINES (Appreciable amount of fines)		GM	Silty GRAVEL; gravel/sand/silt mixture
				GC	Clayey GRAVEL; gravel/sand/clay mixture
	SAND  (More than 50% of coarse fraction passes through #4 sieve)	CLEAN SAND (Little or no fines)		SW	Well-graded SAND; gravelly sand
				SP	Poorly-graded SAND; gravelly sand
		SAND WITH FINES (Appreciable amount of fines)		SM	Silty SAND; sand/silt mixture
				SC	Clayey SAND; sand/clay mixture
FINE-GRAINED SOIL (More than or equal to 50% passes through #200 sieve)	SILT AND CLAY (Liquid Limit less than 50)	Inorganic		ML	SILT and very fine sand; rock flour; silty- or clayey-fine sand or clayey silt with slight plasticity
				CL	CLAY of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay
		Organic		OL	Organic SILT; organic, silty clay of low plasticity
	SILT AND CLAY (Liquid Limit greater than 50)	Inorganic		MH	SILT; micaceous or diatomaceous fine sand or silty soil
				CH	CLAY of high plasticity; fat clay
		Organic		OH	Organic CLAY of medium to high plasticity; organic silt
HIGHLY ORGANIC SOILS				PT	PEAT; humus; swamp soil with high organic content

### NOTES

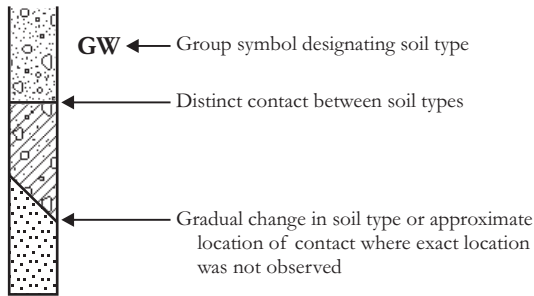
- Dual letter symbols (i.e. SP-SM) for a sand or gravel indicate a soil with an estimated 5-15% fines. Multiple letter symbols (i.e. ML/CL) indicates borderline or multiple soil classifications. Only the first letter symbol's respective graphic symbol (pattern) is shown on logs.
- Soil descriptions shown on logs use the terminology and general approach for the "Visual-Manual Procedure, Description and Identification of Soils" as outlined in ASTM D 2488-90.
- Soil descriptions (which are based on estimated values) are as follows:  
Primary Soil Type(s) - i.e. "GRAVEL", "SAND", "SILT", "CLAY", "PEAT"  
Secondary Soil Type(s) (>15%) - i.e. "gravelly", "sandy", "silty", "clayey", etc.  
Modifier(s) (>5% and < 15% - i.e. "with gravel", "with sand", "with silt", "with clay", etc.  
Minor Components(s) (<5%) - i.e. "trace gravel", "trace sand", "trace silt", etc.
- Soil Moisture Modifiers:  
Dry - Absence of moisture, dusty, dry to the touch.  
Moist - Damp, but no visible water.  
Wet - Visible free water or saturated, usually soil is obtained below the water table.

**Figure A-1**  
**Soil Classification System**





## Soil Profile



## Field Screening

Headspace vapor concentration data is given in parts per million

Sheen Classification System:

NS No Visible Sheen

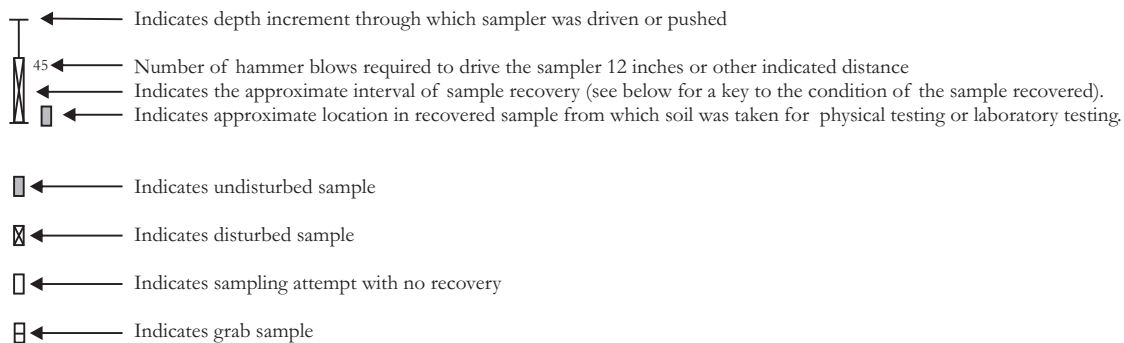
SS Slight Sheen

MS Moderate Sheen

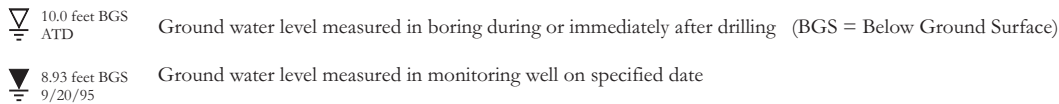
HS Heavy Sheen

Field screening methods are described in the appendix

## Sample Symbols



## Ground Water Symbols



## Common Analytical Testing Methods

BTEX	Benzene, toluene, ethylbenzene and xylenes by EPA Method 8021
NWTPH-G	Gasoline-range organics by Ecology Method NWTPH-G
NWTPH-Dx	Diesel-range organics by Ecology Method NWTPH-D extended
VOCs	Volatile Organic Compounds by EPA Method 8260B
SVOCs	Semivolatile Organic Compounds by EPA Method 8270
PAHs	Polycyclic Aromatic Hydrocarbons by EPA Method 8270 SIMS
PCBs	Polychlorinated Biphenyls by EPA Method 8082

## Figure A-2

### Key to Common Symbols

Pinnacle GeoSciences



BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Start/Abandonment Cards: SE02967 / AE03971

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: B1-A

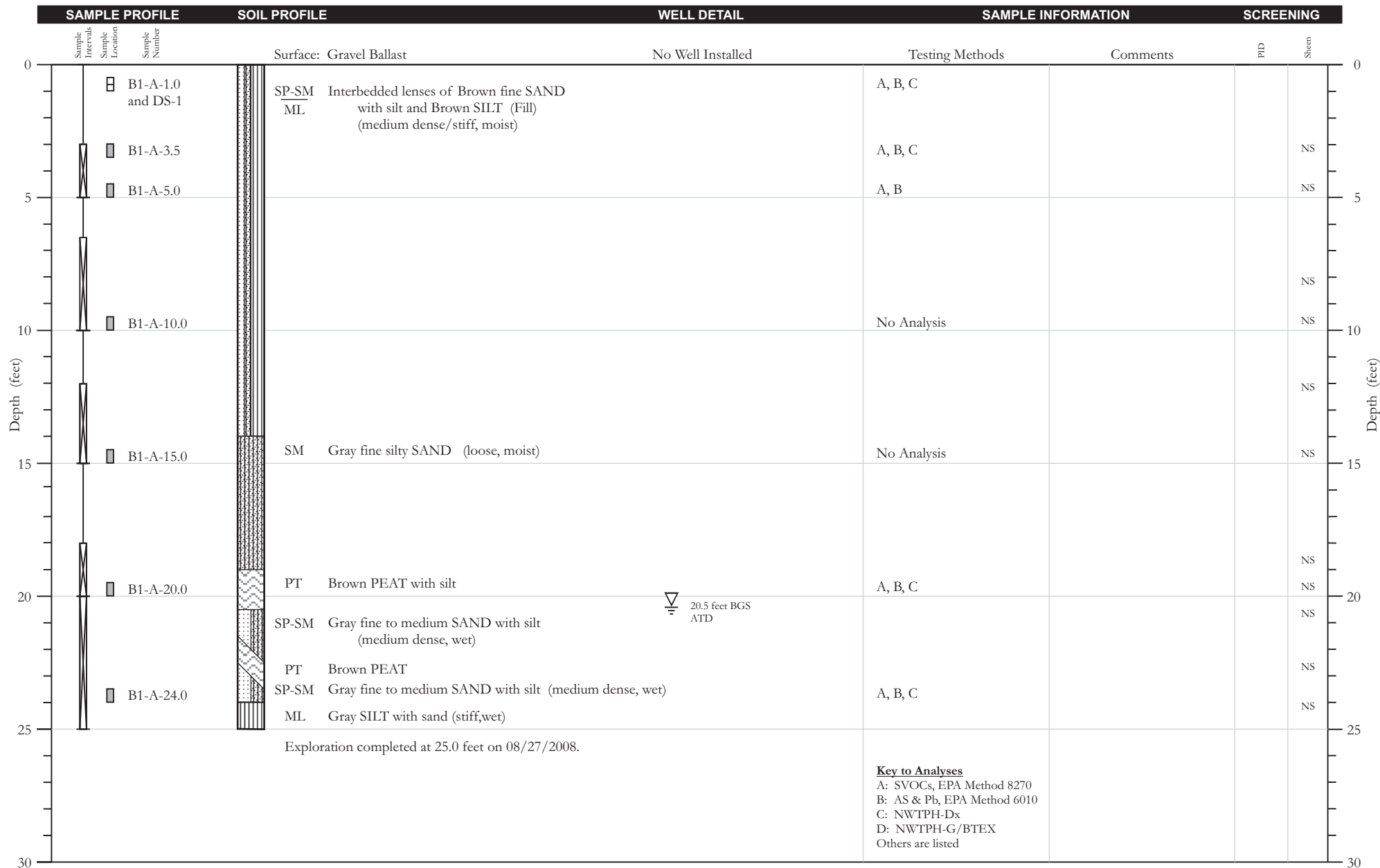


Figure A-3 Soil Boring Log: B1-A

BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Start/Abandonment Cards: SE02967 / AE03971

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: B1-B

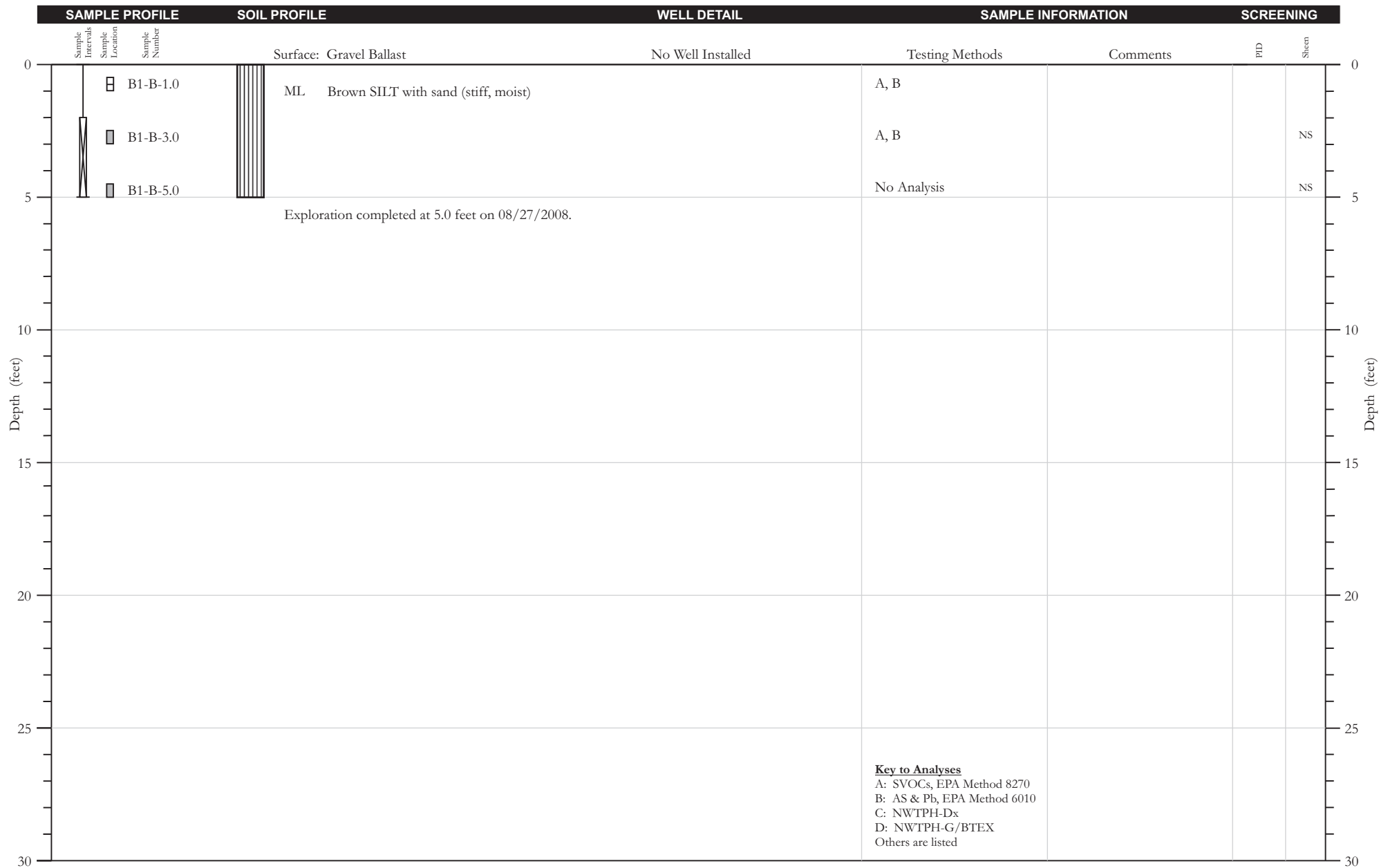


Figure A-4 Soil Boring Log: B1-B



BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Start/Abandonment Cards: SE02967 / AE03971

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q1-A

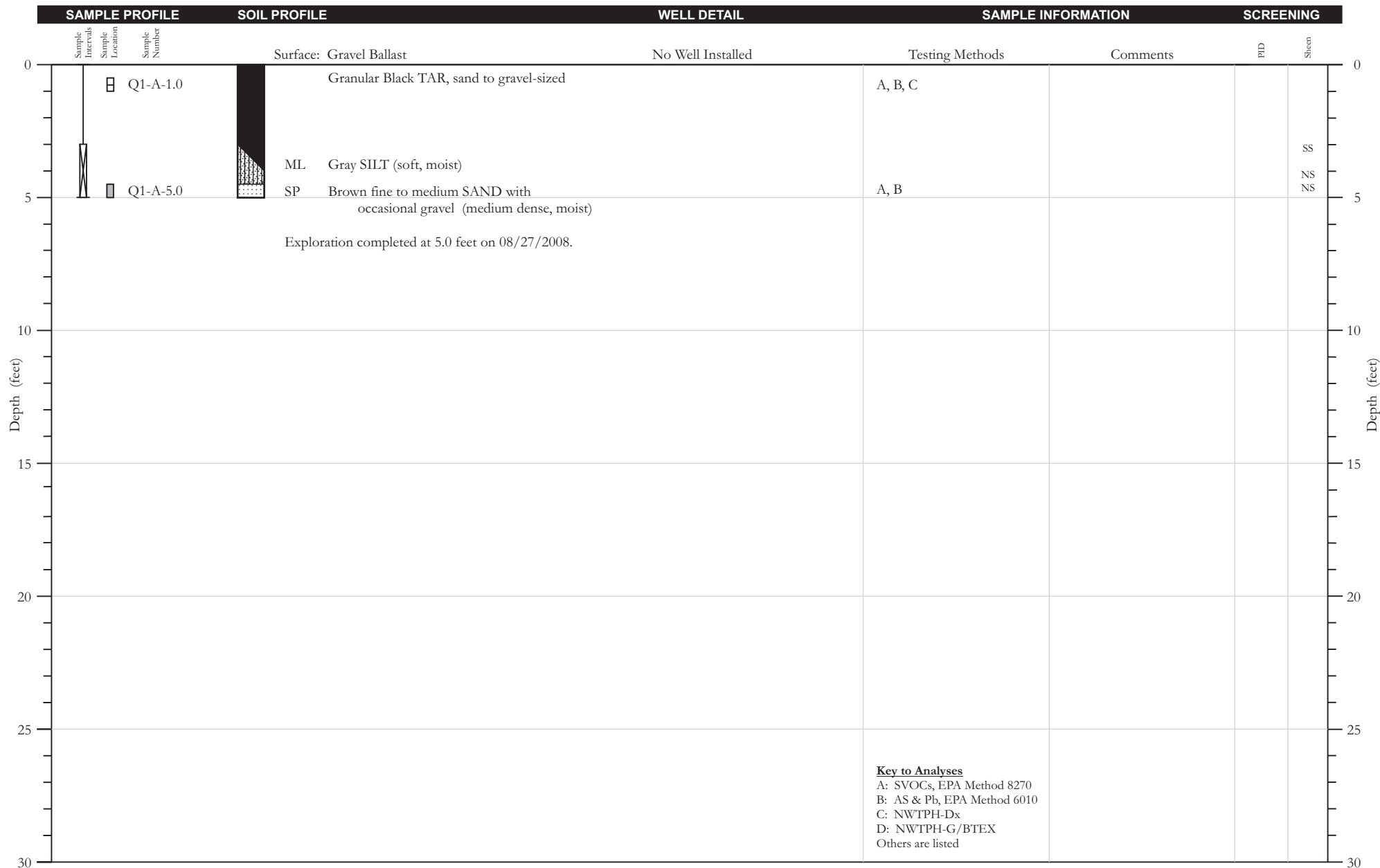


Figure A-6 Soil Boring Log: Q1-A





BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Start/Abandonment Cards: EE00721 / AE03972

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q1-D

SAMPLE PROFILE			SOIL PROFILE	WELL DETAIL	SAMPLE INFORMATION		SCREENING	
Sample Intervals	Sample Location	Sample Number			Testing Methods	Comments	PID	Screen
			Surface: Compacted Soil	No Well Installed				
			Brown Wood Debris (fill)					
		Q1-D-2.0	ML Gray SILT with sand and gravel (hard, moist)		● As, Cr, Cu, Pb, Ni, Zn ● PCBs by EPA 8082 ● Pesticides by EPA 8081		0.1	SS
		Q1-D-3.5					0.1	SS
		Q1-D-5.0	ML Brown SILT (hard, moist)		A, B		0.1	NS
		Q1-D-9.0	SM Gray silty fine SAND (dense, moist)		A, B, C, D	Coating	0.1	MS
			ML			Staining		
			ML Gray SILT with sand (hard, moist)			Staining		
			ML Brown SILT (hard, moist)			No Staining		
		Q1-D-15.0	SP Brown fine to medium SAND (dense, wet)		A, B, C, D	Oil wetted	0.1	MS
			ML Gray SILT with sand (stiff, wet)	15.0 feet BGS ATD		Staining	0.1	MS
			SP Gray fine to medium SAND (medium dense, wet)			Coating	0.1	HS
			ML Gray SILT (soft, moist)				0.1	HS
		Q1-D-23.0 and SD-2	SP Gray fine SAND (medium dense, wet)	Temporary Well Casing Installed Screened at 15 to 20 feet BGS Ground Water Sample Q1-D-W collected on 8/27/2008	A, B, C, D	Coating	0.1	HS
			ML Gray SILT (stiff, wet)				0.1	NS
			GP Fine GRAVEL with sand (medium dense, wet)				0.1	NS
			ML Gray SILT with sand (stiff, wet)				0.1	NS
		Q1-D-30.0	Exploration completed at 30.0 feet on 08/27/2008.		A, B, C, D		0.1	NS

### Key to Analyses

A: SVOCs, EPA Method 8270  
B: AS & Pb, EPA Method 6010  
C: NWT PH-Dx  
D: NWT PH-G/BTEX  
Others are listed

Figure A-9 Soil Boring Log: Q1-D



BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Start/Abandonment Cards: SE02967 / AE03971

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q2-A

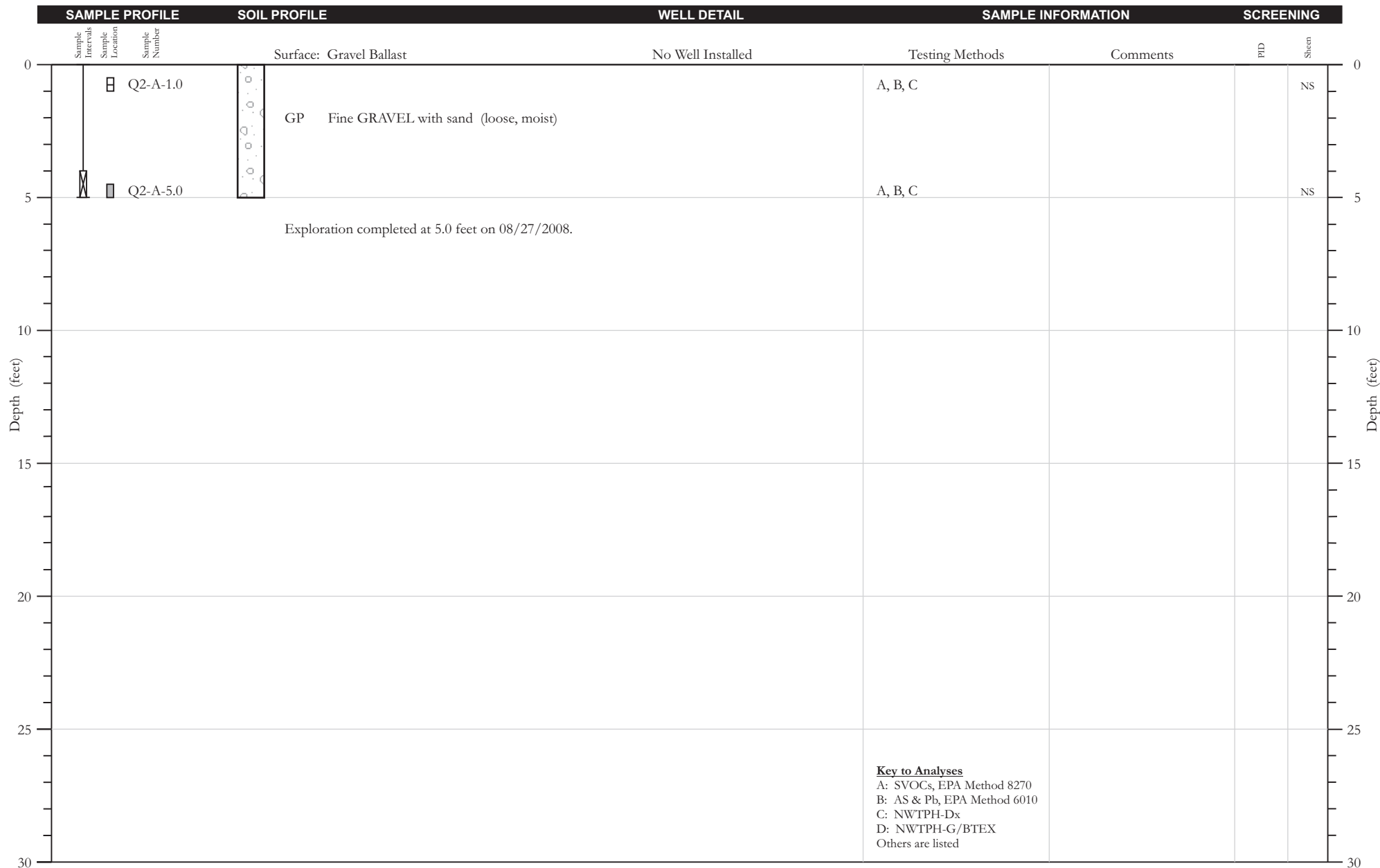


Figure A-10 Soil Boring Log: Q2-A

BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Start/Abandonment Cards: SE02967 / AE03971

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q2-B

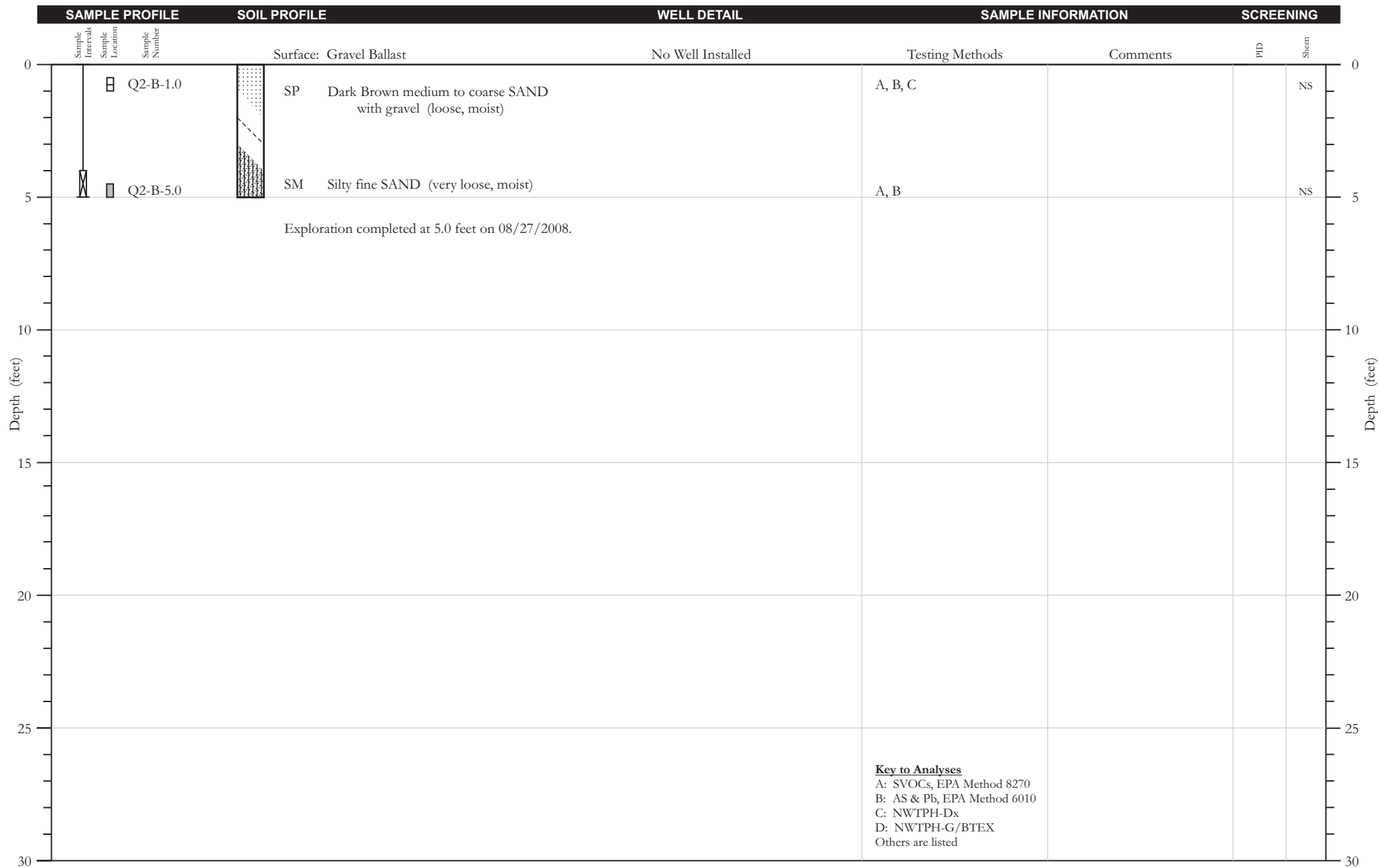


Figure A-11 Soil Boring Log: Q2-B

BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Start/Abandonment Cards: SE02967 / AE03971

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q2-C

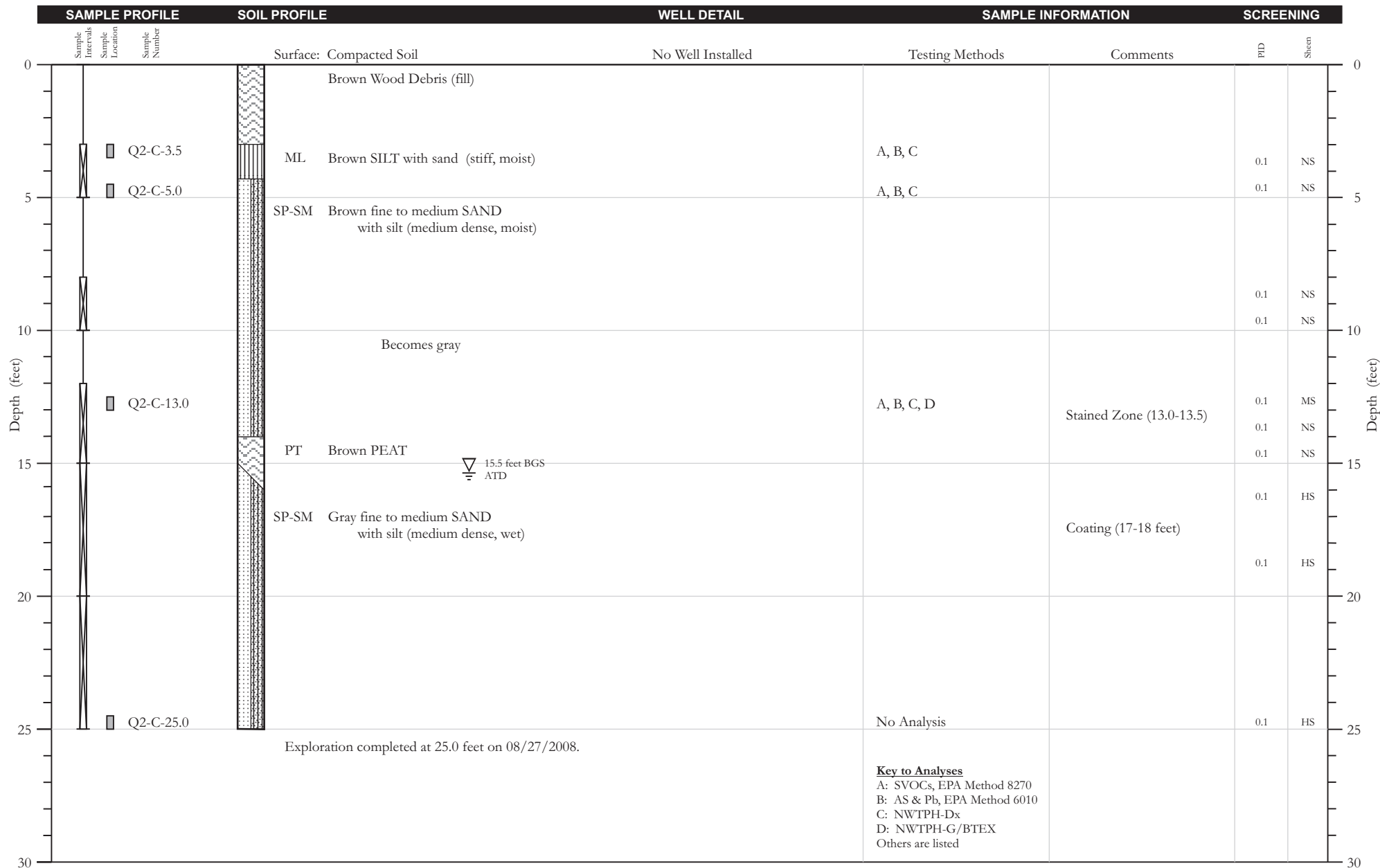
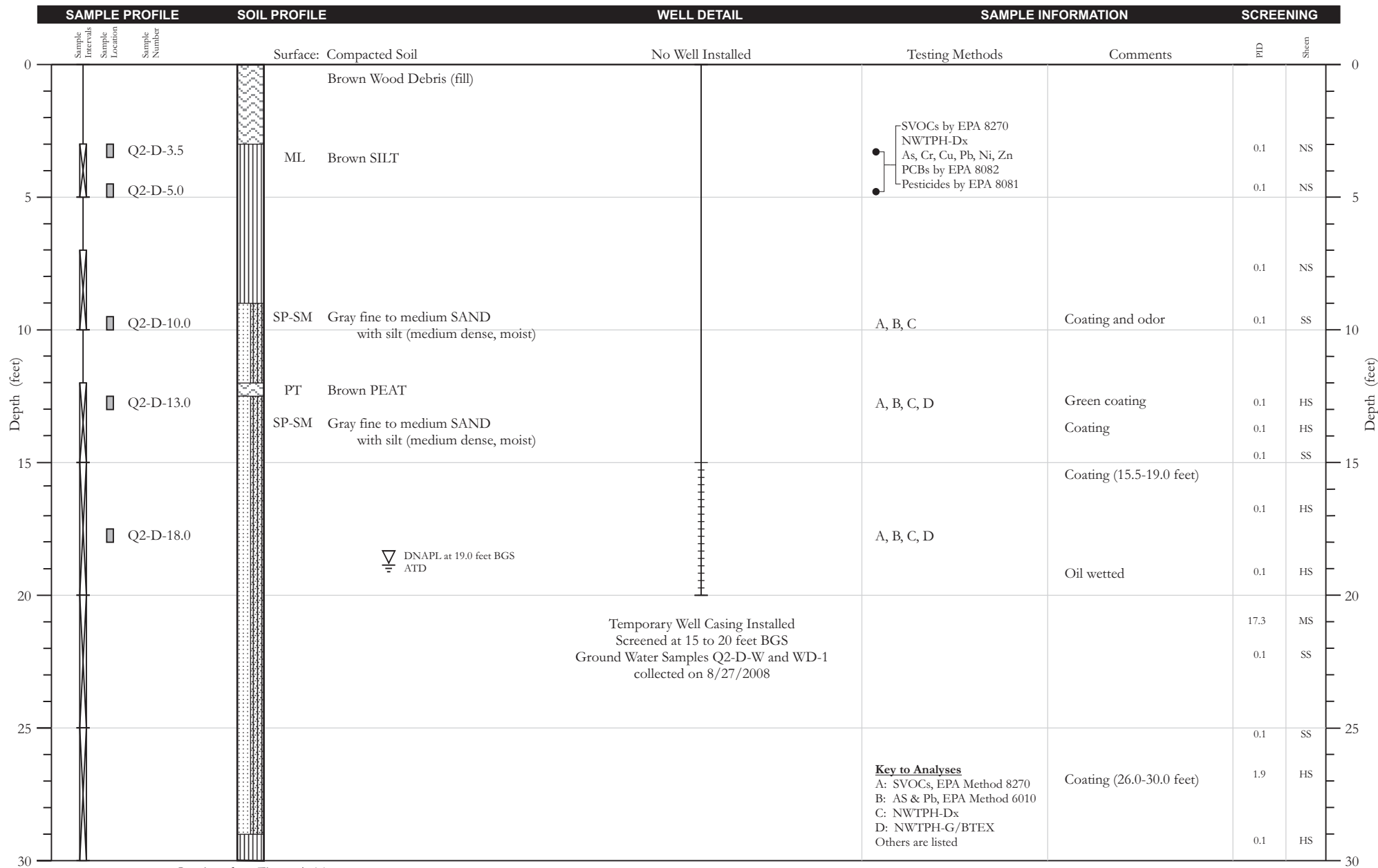


Figure A-12 Soil Boring Log: Q2-C

## Exploration ID: Q2-D



Continued on Figure A-14

Figure A-13 Soil Boring Log: Q2-D (page 1 of 2)



BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Start/Abandonment Cards: SE02967 / AE03971

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q3

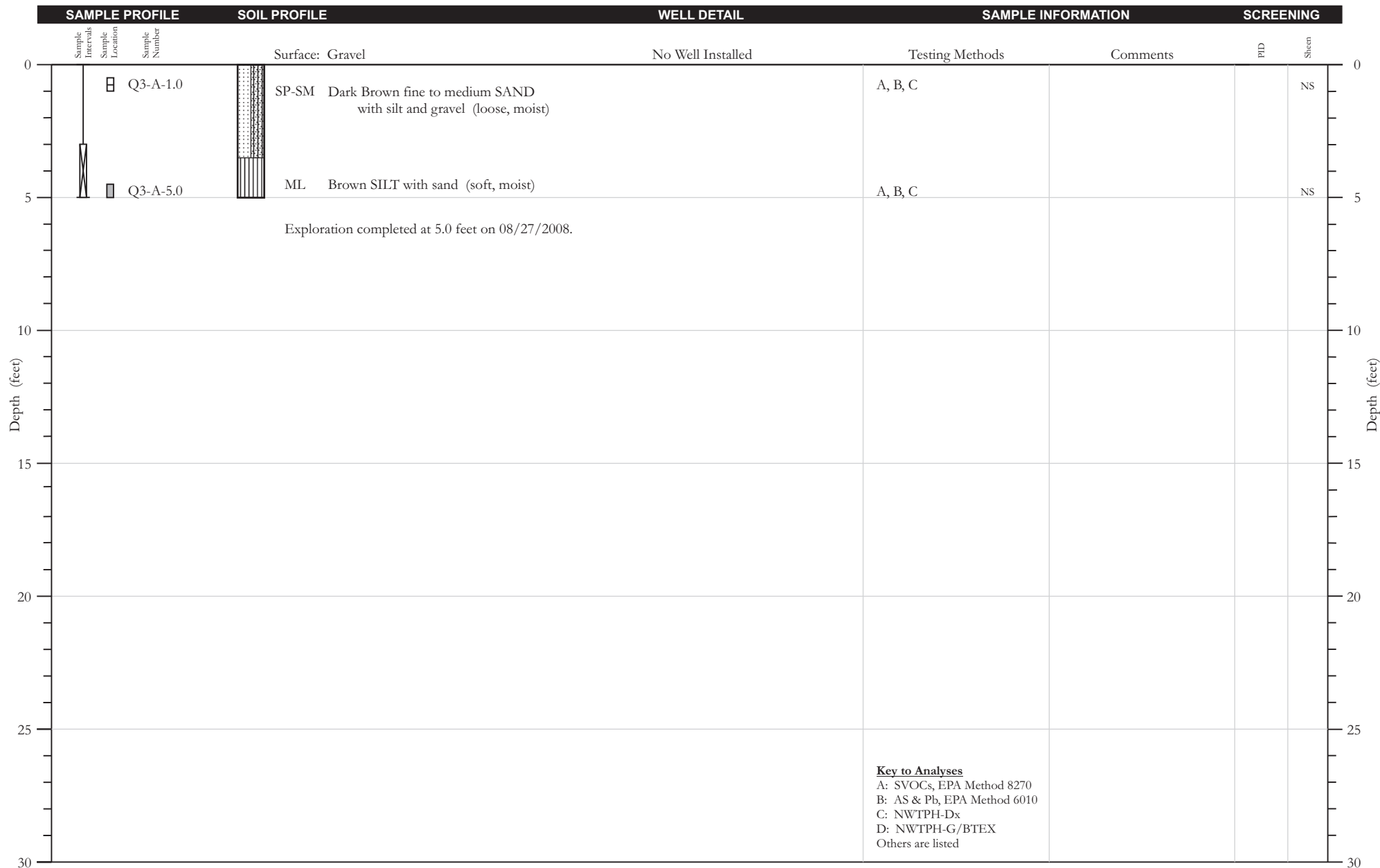


Figure A-15 Soil Boring Log: Q3







BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Notice of Intent: SE03506

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q5

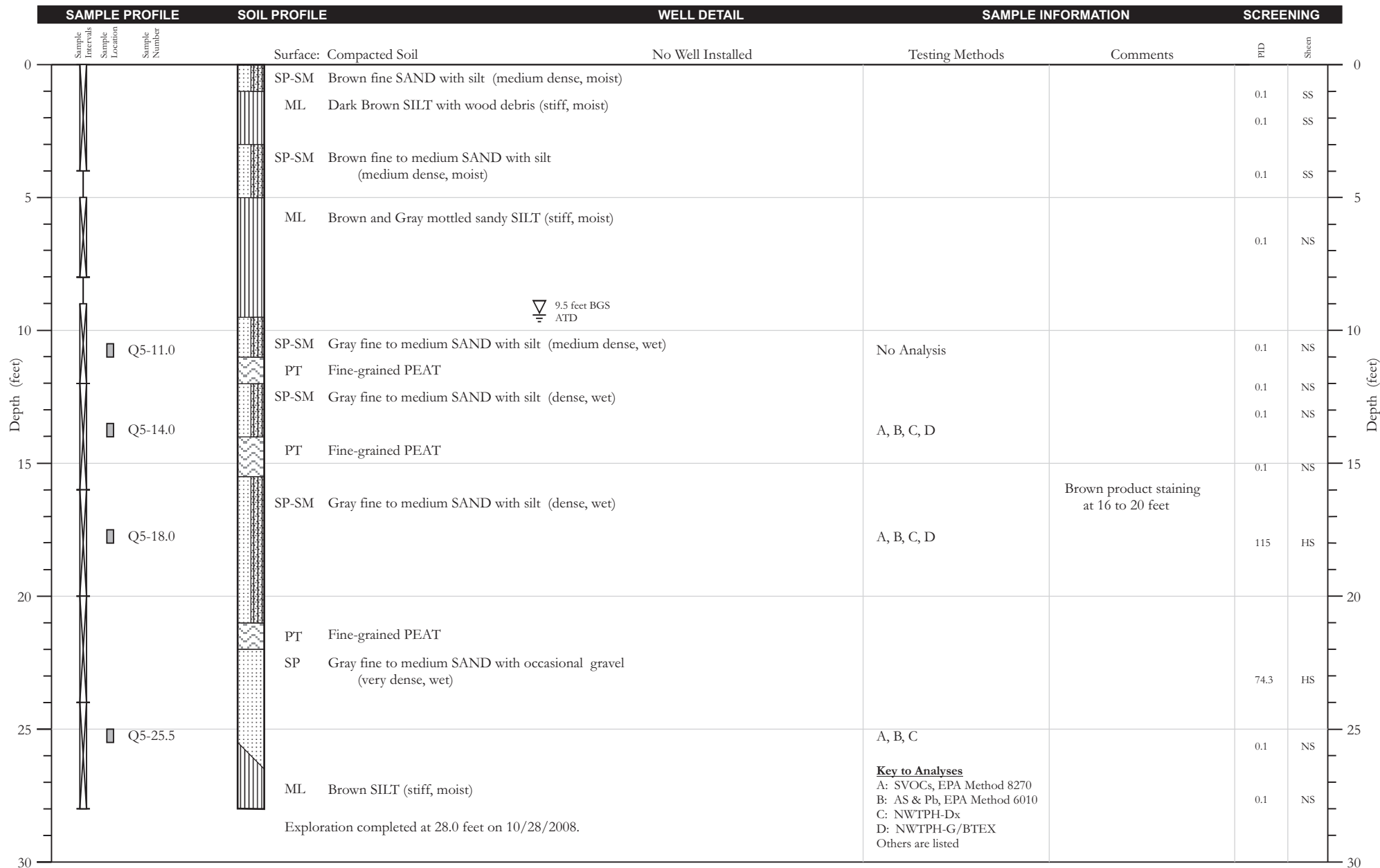


Figure A-18 Soil Boring Log: Q5

BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Notice of Intent: SE03506

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q6

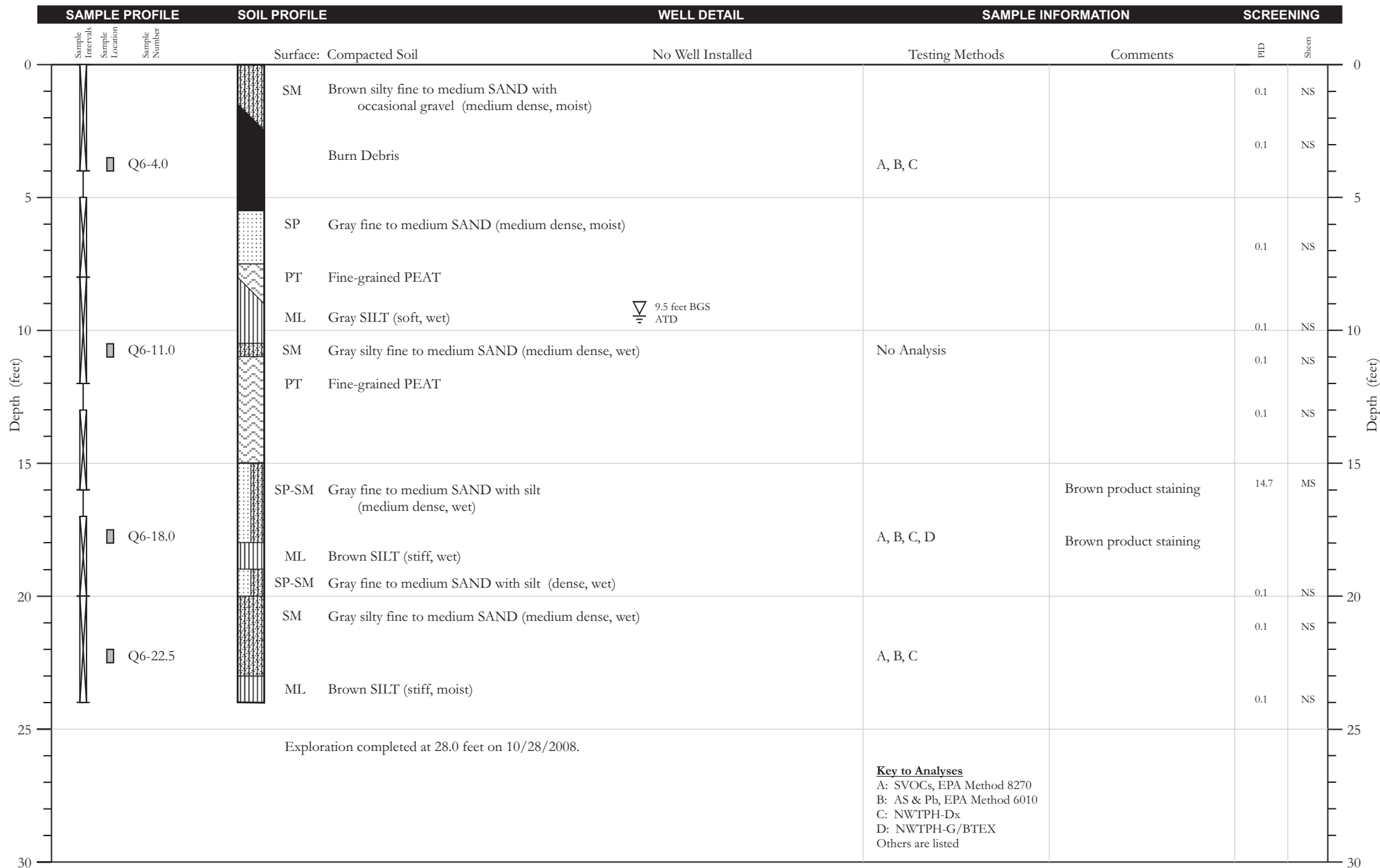


Figure A-19 Soil Boring Log: Q6

BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Notice of Intent: SE03506

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q7

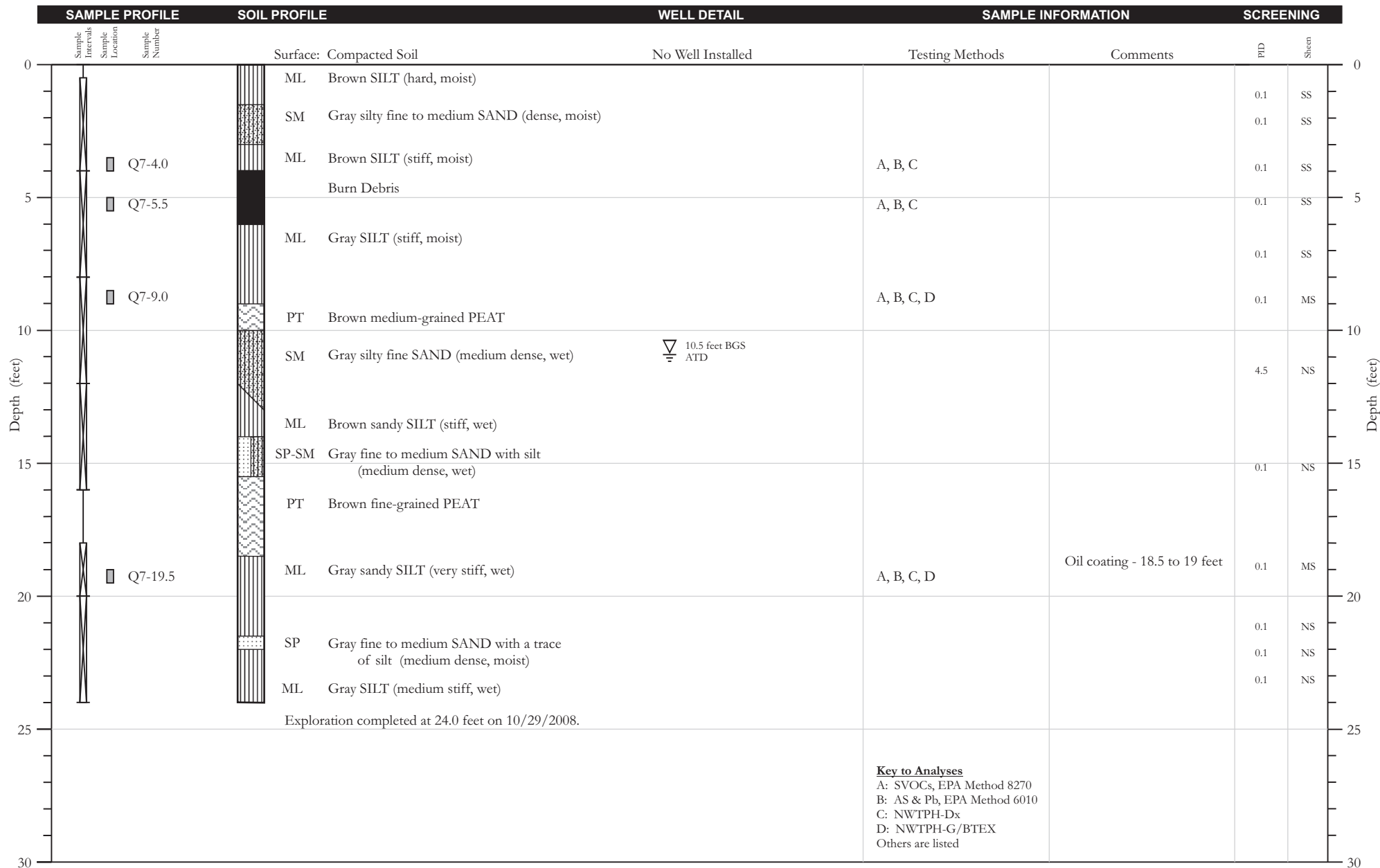


Figure A-20 Soil Boring Log: Q7

BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Notice of Intent: SE03506

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q8

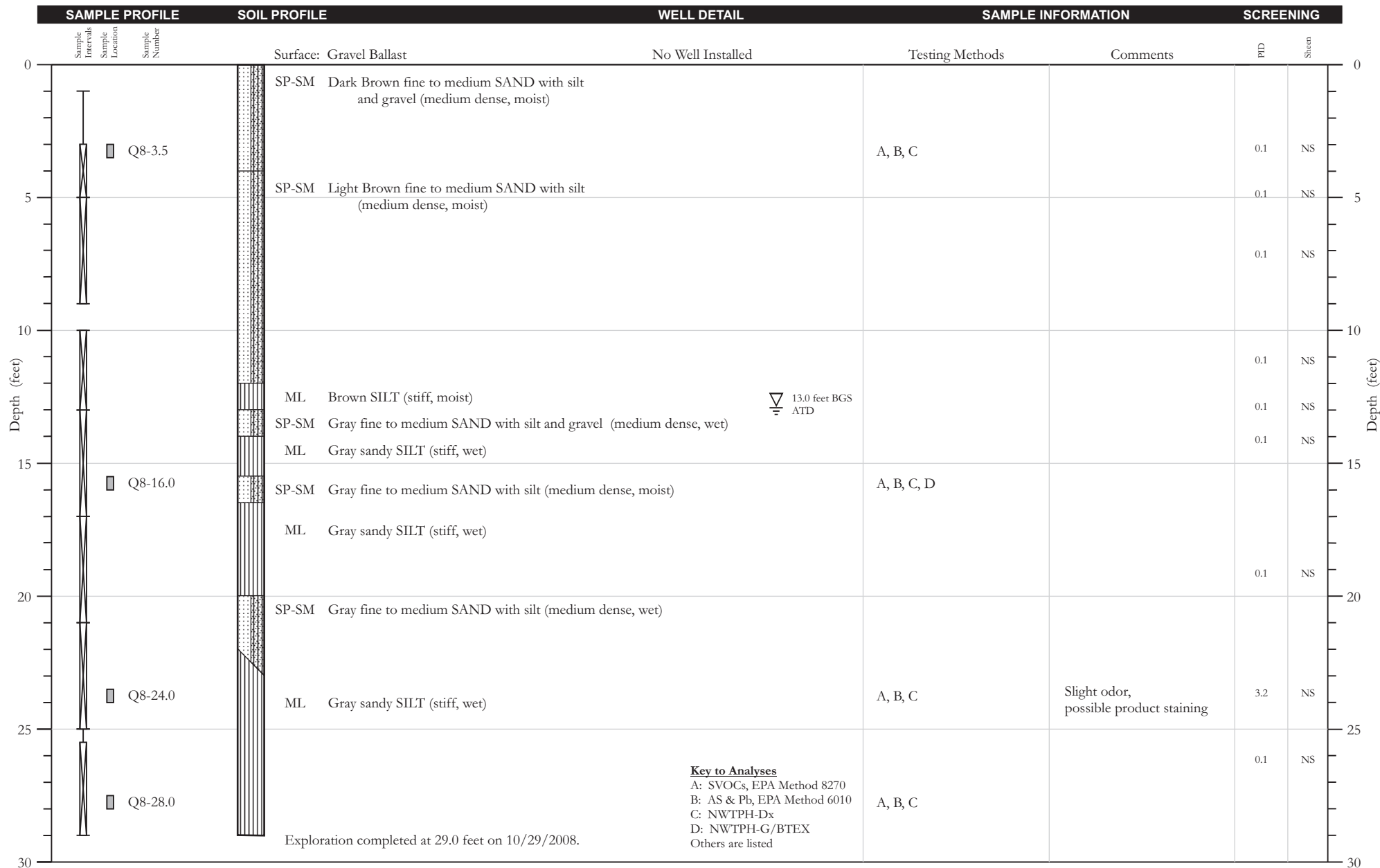


Figure A-21 Soil Boring Log: Q8

BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Notice of Intent/Well Tag: RE02773 / BBA-607

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q9

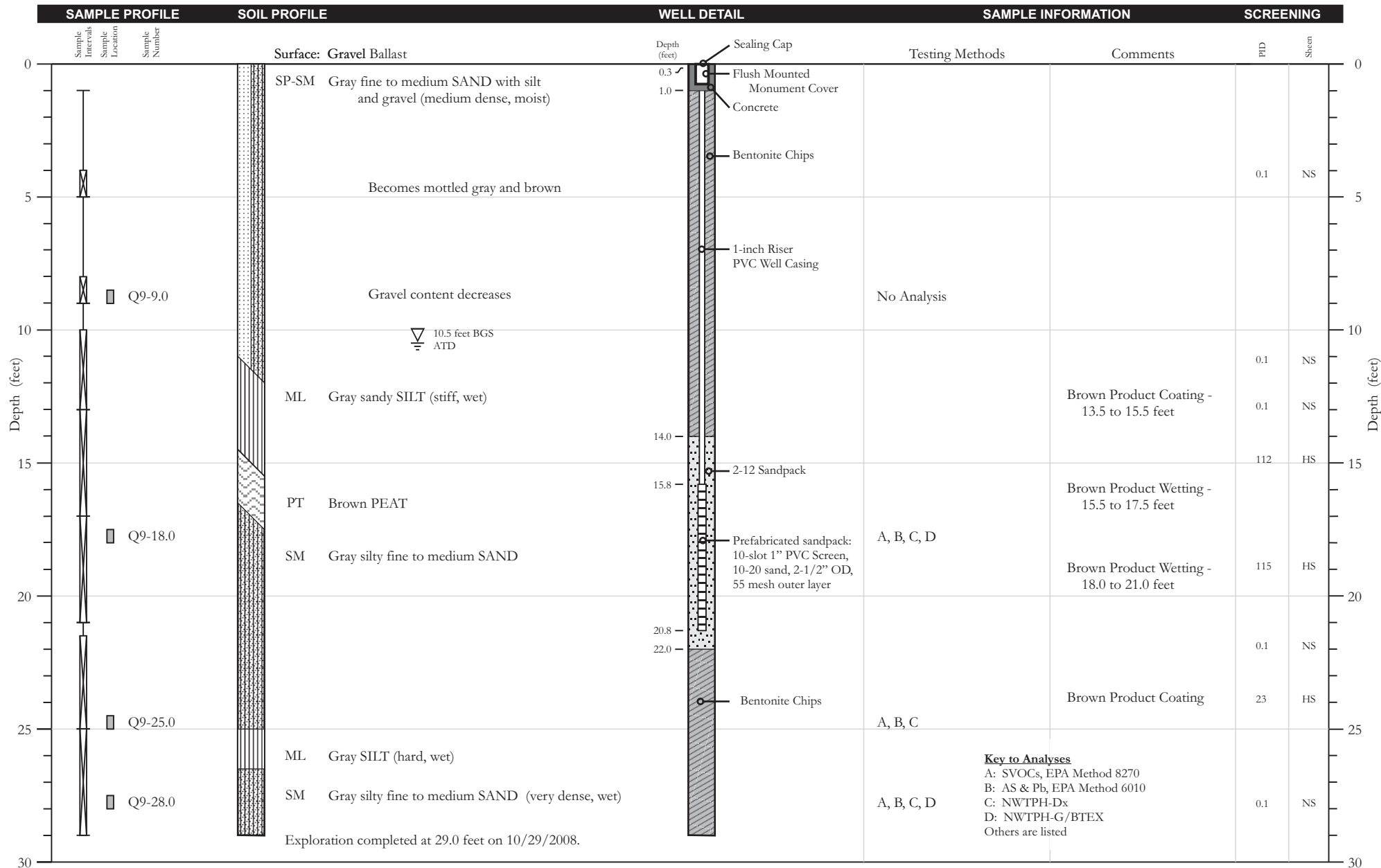


Figure A-22 Soil Boring Log: Q9

BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Notice of Intent: SE03506

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q10

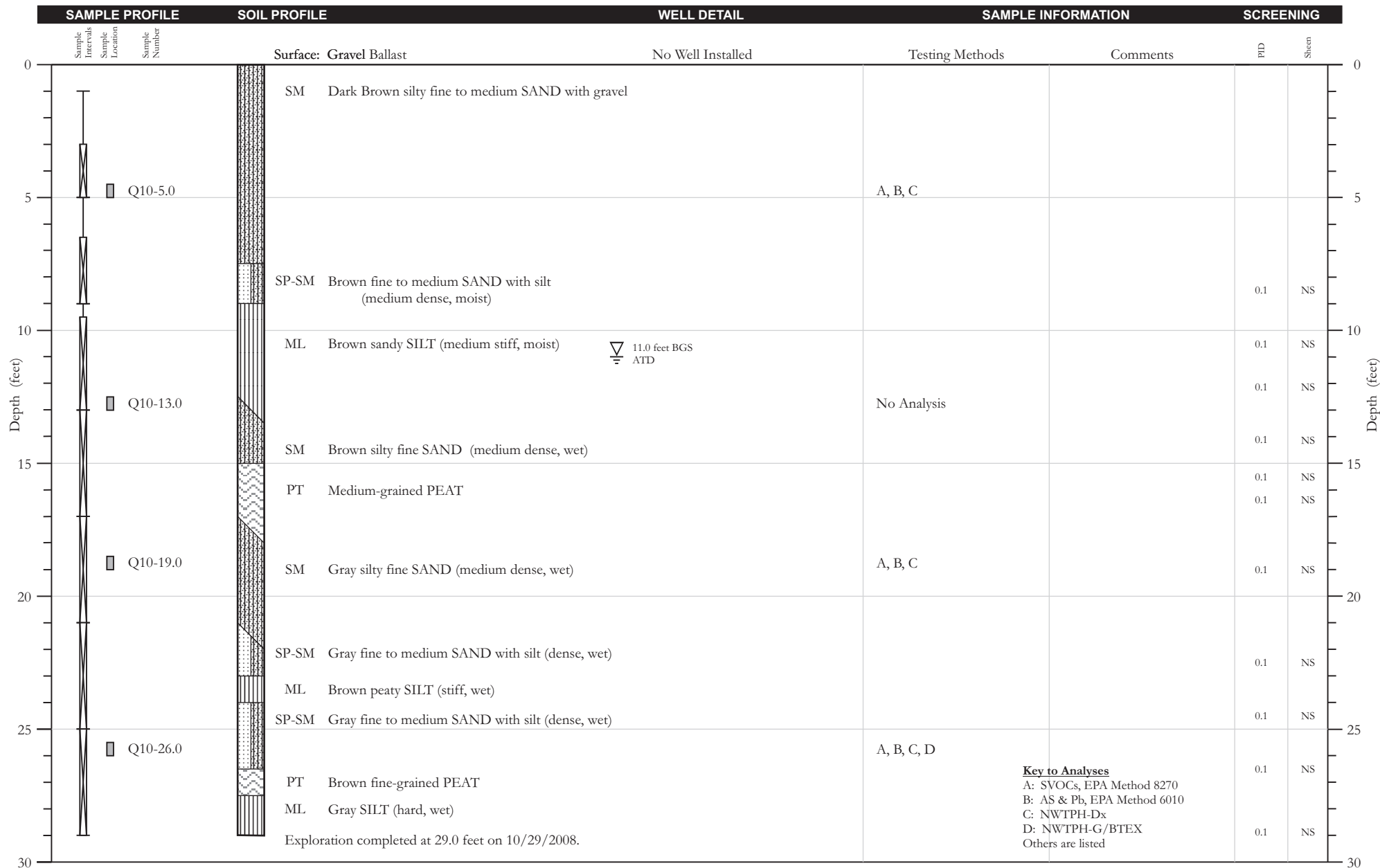


Figure A-23 Soil Boring Log: Q10

BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Notice of Intent:

Cascade Drilling  
SE03506

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q11

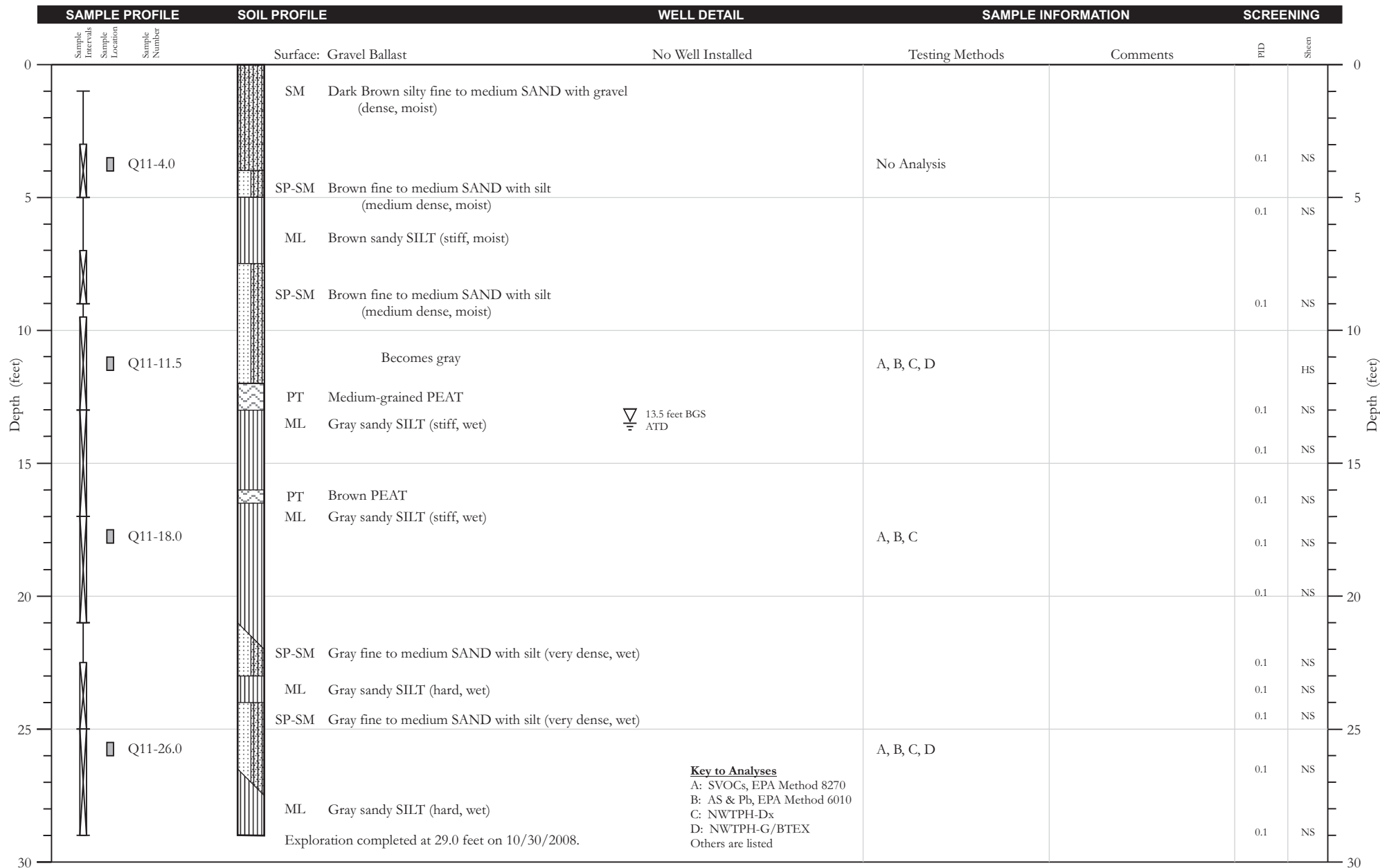


Figure A-24 Soil Boring Log: Q11





BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Notice of Intent: SE03506

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q13

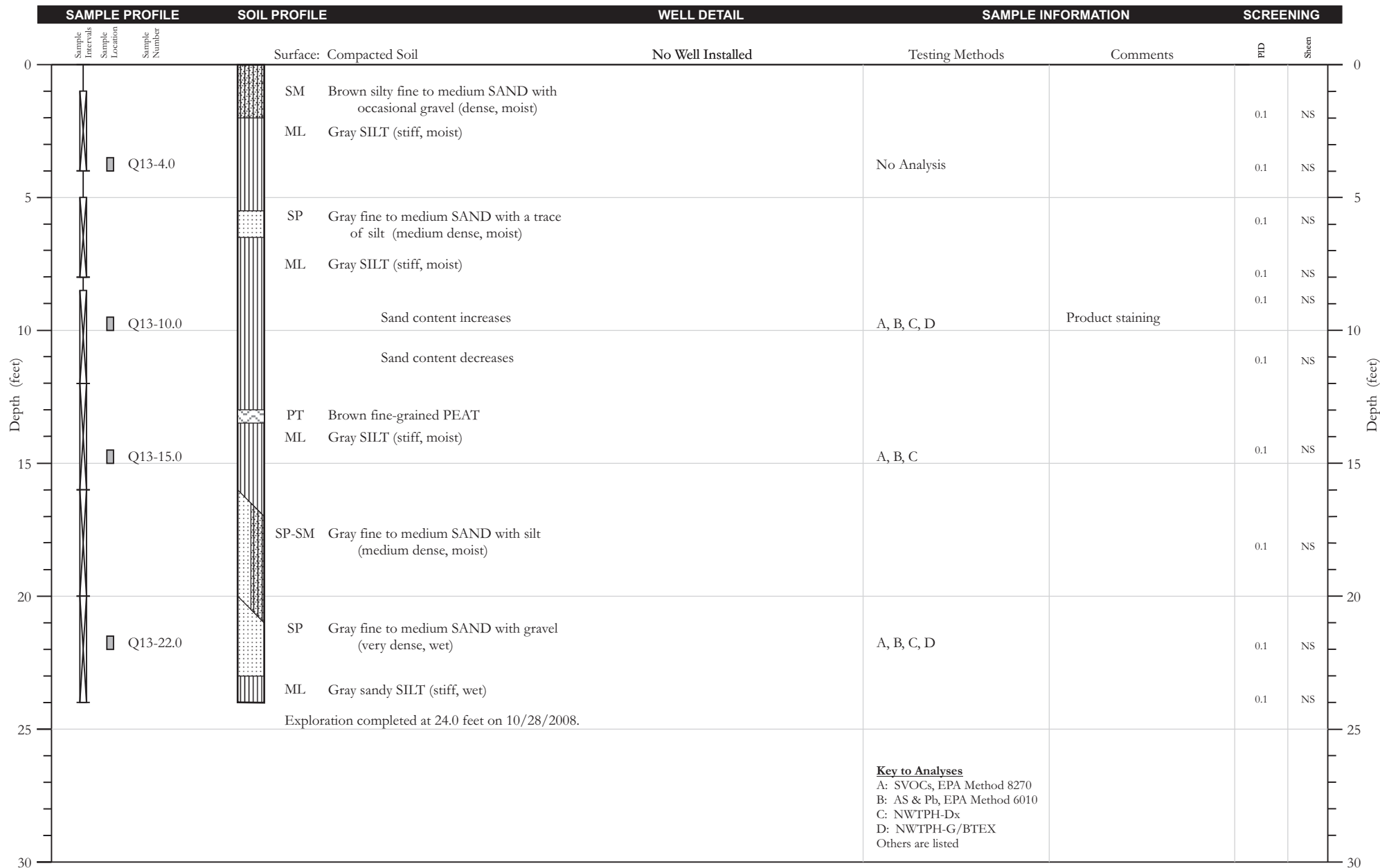


Figure A-26 Soil Boring Log: Q13

BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Notice of Intent/Well Tag: RE02773 / BBA-557

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q14

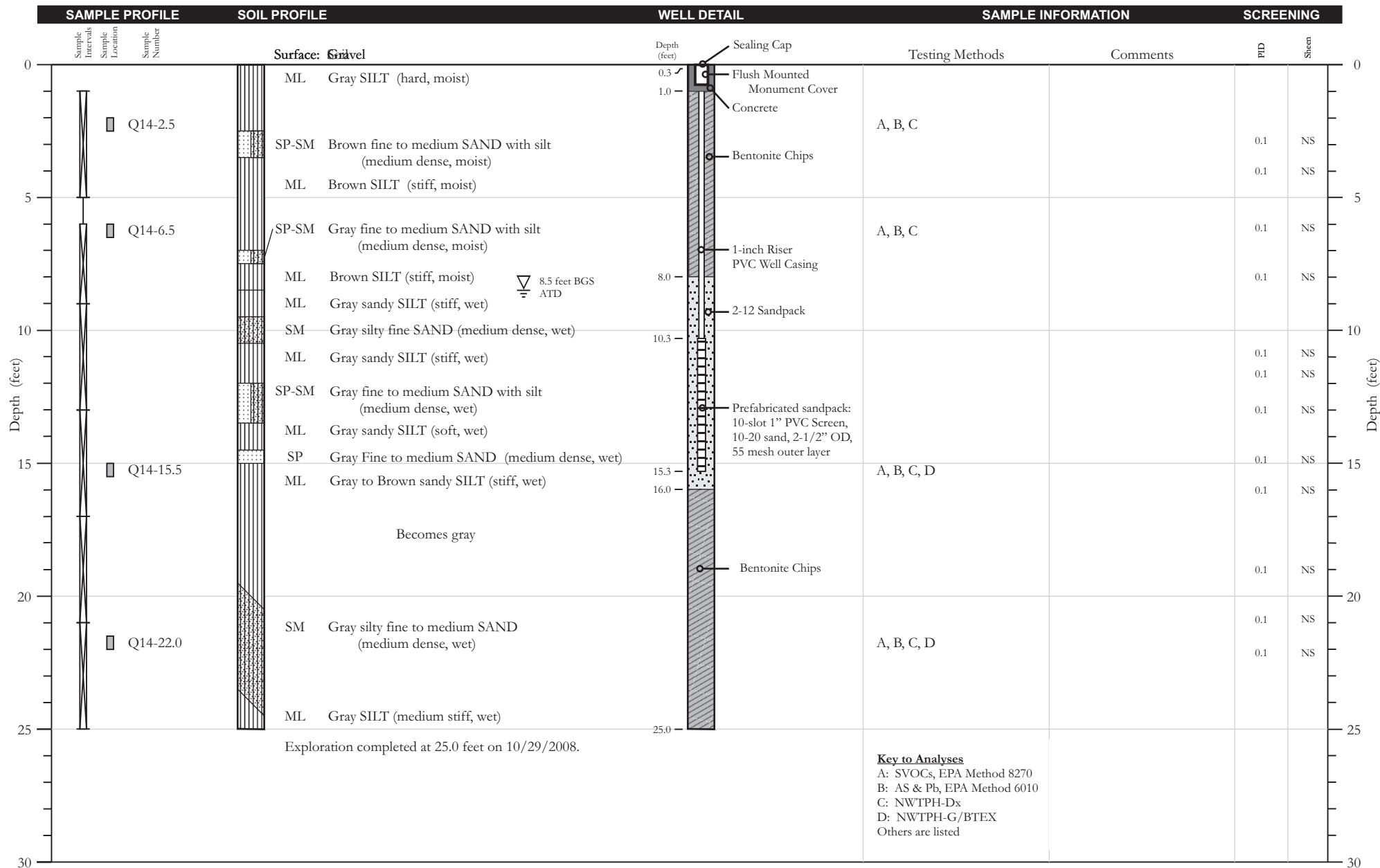


Figure A-27 Soil Boring Log: Q14



BNSF ROW Property at Quendall Terminal  
Client: The Port of Seattle

Logged By: Norman Puri, PE  
Project Number: 0155-051.I

Driller: Cascade Drilling  
Notice of Intent: SE03506

Drilling Method: Direct Push, 2-inch I.D.  
Sampler Type: Macrocore, 2-inch

## Exploration ID: Q16

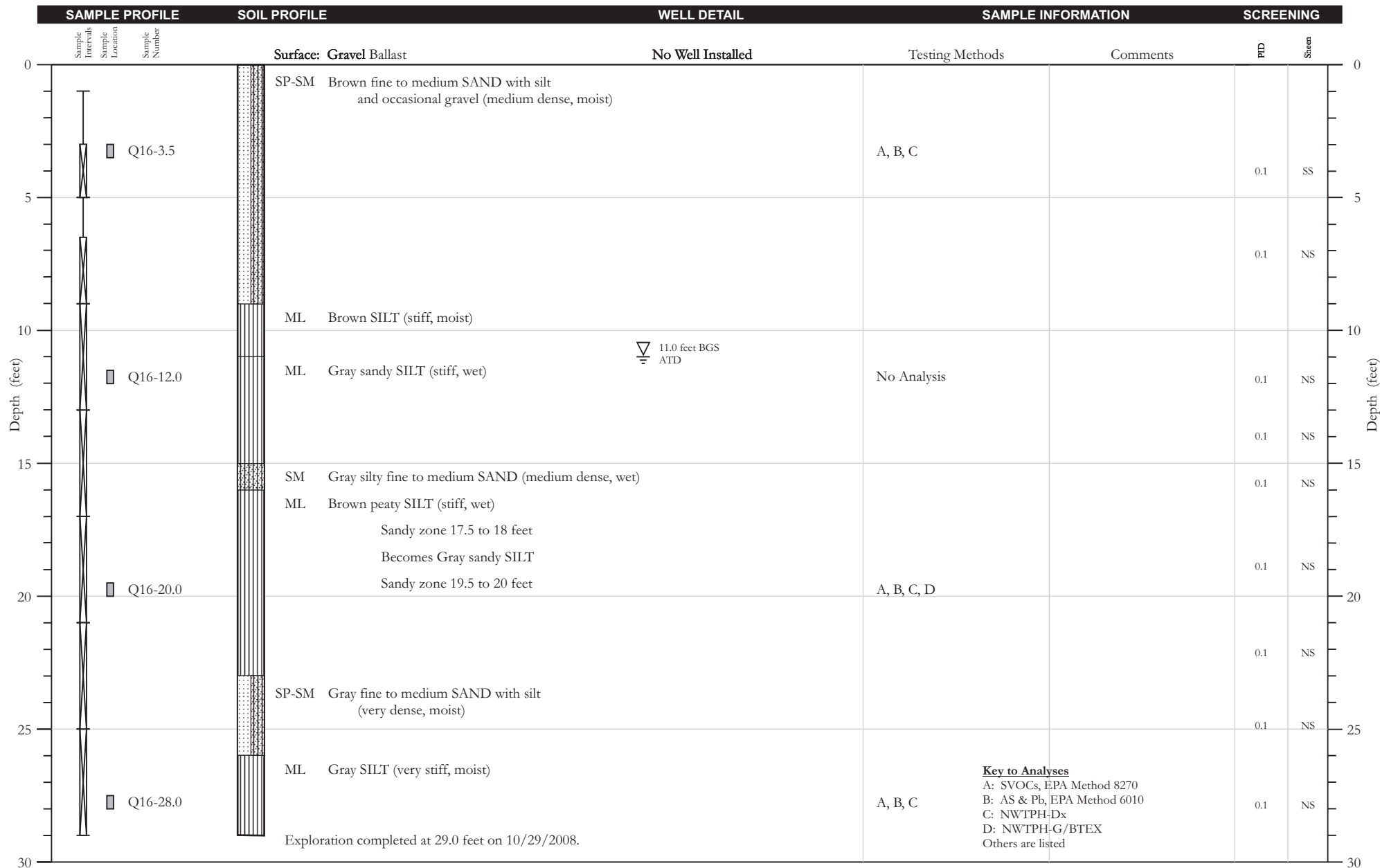


Figure A-29 Soil Boring Log: Q16

